

November 12, 2021

VIA ELECTRONIC MAIL

Luly E. Massaro, Commission Clerk
Rhode Island Public Utilities Commission
89 Jefferson Boulevard
Warwick, RI 02888

RE: Docket 5189 – 2022 Annual Energy Efficiency Program Plan Responses to EERMC Data Requests - Set 1 (Complete Set)

Dear Ms. Massaro:

On behalf of The Narragansett Electric Company d/b/a National Grid (“National Grid” or the “Company”), attached please find the electronic version of the complete set of responses to the Energy Efficiency Resource Management Council’s (“EERMCs”) First Set of Data Requests in the above referenced docket.¹

Additionally, the Company is including a copy of its Motion for Protective Treatment of EERMC 1-8 previously submitted with batch 3 of its responses on November 5, 2021.

Thank you for your attention to this filing. If you have any questions or concerns, please do not hesitate to contact me at 401-784-4263.

Sincerely,



Andrew S. Marcaccio

cc: Docket 5189 Service List
Margaret Hogan, Esq.
Jon Hagopian, Esq.
John Bell, Division

¹ Per the Commission’s request, the Company is providing one copy of this transmittal for the Commission’s docket file and six (6) copies, 3-hole punched for Commission.

Certificate of Service

I hereby certify that a copy of the cover letter and any materials accompanying this certificate was electronically transmitted to the individuals listed below.

The paper copies of this filing are being hand delivered to the Rhode Island Public Utilities Commission and to the Rhode Island Division of Public Utilities and Carriers.



Joanne M. Scanlon

November 12, 2021
Date

**Docket No. 5189 - National Grid – 2022 Annual Energy Efficiency Program
Service list updated 10/27/2021**

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STATE OF RHODE ISLAND
PUBLIC UTILITIES COMMISSION

THE NARRAGANSETT ELECTRIC CO. D/B/A)
NATIONAL GRID'S 2022 ANNUAL) DOCKET NO. 5189
ENERGY EFFICIENCY PLAN)

MOTION OF THE NARRAGANSETT ELECTRIC COMPANY D/B/A
NATIONAL GRID FOR PROTECTIVE TREATMENT OF
CONFIDENTIAL INFORMATION

The Narragansett Electric Company d/b/a National Grid (“National Grid” or the “Company”) hereby respectfully requests that the Public Utilities Commission (“PUC”) grant protection from public disclosure certain confidential information submitted by the Company in the above referenced docket. The reasons for the protective treatment are set forth herein. The Company also requests that, pending entry of that finding, the PUC preliminarily grant the Company’s request for confidential treatment pursuant to 810-RICR-00-00-1.3(H)(2).

The record that is the subject of this Motion that requires protective treatment from public disclosure is the Company’s confidential response to EERMC 1-8 (“EERMC 1-8”) which was filed by the Company on November 5, 2021 in response to the First Set of Data Requests issued by the Energy Efficiency Resource Management Council (“EERMC”) in the above-referenced docket. National Grid requests protective treatment of EERMC 1-8 in accordance with 810-RICR-00-00-1.3(H) and R.I. Gen. Laws § 38-2-2-(4)(B).

I. LEGAL STANDARD

For matters before the PUC, a claim for protective treatment of information is governed by the policy underlying the Access to Public Records Act (“APRA”), R.I. Gen. Laws § 38-2-1 et seq. See 810-RICR-00-00-1.3(H)(1). Under APRA, any record received or maintained by a state or local governmental agency in connection with the transaction of official business is considered

public unless such record falls into one of the exemptions specifically identified by APRA. See R.I. Gen. Laws §§ 38-2-3(a) and 38-2-2(4). Therefore, if a record provided to the PUC falls within one of the designated APRA exemptions, the PUC is authorized to deem such record confidential and withhold it from public disclosure.

II. BASIS FOR CONFIDENTIALITY

EERMC 1-8, which is the subject of this Motion, is exempt from public disclosure pursuant to R.I. Gen. Laws § 38-2-2(4)(B) as “[t]rade secrets and commercial or financial information obtained from a person, firm, or corporation that is of a privileged or confidential nature.” *The Attorney General’s Guide to Open Government in Rhode Island 6th Edition*¹ provides guidance as to the scope of R.I. Gen. Laws § 38-2-2(4)(B)’s applicability. It states that:

If a request is made for financial or commercial information that a person is obliged to provide to the government, it is exempt from disclosure if the disclosure is likely either: (1) to impair the government’s ability to obtain information in the future, or (2) to cause substantial harm to the competitive position of the person from whom the information was obtained. If a request is made for financial or commercial information that is provided to the government on a voluntary basis, it is exempt from disclosure if the information “is a kind that would customarily not be released to the public by the person from whom it was obtained.” *The Providence Journal Company v. Convention Center Authority*, 774 A.2d 40 (R.I. 2001).

EERMC 1-8 consists of financial and commercial information. National Grid would customarily not release this information to the public. The Company’s submission of EERMC 1-8 stems from data requests issued by the EERMC in the above-referenced docket. Accordingly, National Grid is providing EERMC 1-8 to fulfil its regulatory responsibilities. Therefore, EERMC 1-8 is exempt from public disclosure “if the disclosure is likely either: (1) to impair the government’s ability to obtain information in the future, or (2) to cause substantial harm to the

¹ <http://www.riag.ri.gov/Forms/AGguidetoopengovernment.pdf>

competitive position of the person from whom the information was obtained.” See *The Attorney General’s Guide to Open Government in Rhode Island 6th Edition*, p. 22.

The release of EERMC 1-8 is likely to cause substantial harm to the competitive position of National Grid and the vendor that supplied the bid. EERMC 1-8 contains commercially sensitive market information including competitive pricing information submitted to the Company in confidence by a vendor. Disclosure of the competitive pricing information could negatively impact the Company’s customers because prospective vendors will have access to the competitive pricing information and could structure their bids so that they bid up to the listed price or the prospective vendors could use the pricing information as leverage in contract negotiations. In addition, the information could be used against the Company’s vendor when its tries to negotiate similar contracts in the future with other entities.

III. CONCLUSION

For the foregoing reasons, the Company respectfully requests that the PUC grant this motion for protective treatment of EERMC 1-8.

Respectfully submitted,

NATIONAL GRID
By its attorney,

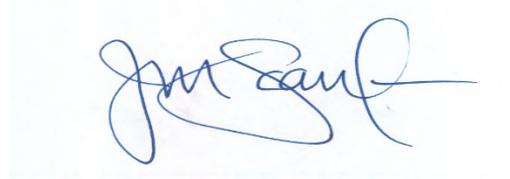


Andrew S. Marcaccio (#8168)
National Grid
280 Melrose Street
Providence, RI 02907
(401) 784-4263

Dated: November 5, 2021

CERTIFICATE OF SERVICE

I hereby certify that on November 5, 2021, I delivered a true copy of the foregoing Motion via electronic mail to the parties on the Service List for Docket No. 5189.



Joanne M. Scanlon

EERMC 1-1
Portfolio-Level Planning

Request:

Please provide Electric and Gas BCR models and updated Attachments 5 and 6 (Electric Tables and Gas Tables) reflecting all program activity that could be pursued in 2022 if there were no budget constraint for the level of spending in 2022.

- a. Please clearly differentiate between incremental program activity that corresponds to expansion of existing program activities and any activity that is substantively different from the mix of activities contained in the Provisional Plan filed on October 8th.

Response:

Please find attached to this response Attachment EERMC 1-1-1 (updated Attachment 5 tables) and Attachment EERMC 1-1-2 (updated Attachment 6 tables). Excel versions of the Electric and Gas BCR models are also being provided (Attachment EERMC 1-1-3, Electric BCR model, Attachment EERMC 1-1-4, Gas BCR model).

The determination of potential activity with no budget constraint could potentially have an infinite number of outcomes which depend on detailed plans and analyses of savings and spending for each program. These planning activities typically take extensive time over several months throughout the planning year, resulting in the single plan that is under consideration. To prepare the response within the time allowed, the Company has accessed available information and has made the following assumptions:

- 1) Budgets: These benefit cost models used the "Base Case" for the 2022 program year filed with the 2021-2023 Three Year Plan in Docket 5076, as a baseline scenario for all program energy efficiency program savings.
- 2) EM&V-based Assumptions: The attached benefit cost models maintain the evaluation, measurement and verification assumptions used in the original filing of the 2022 Annual Plan (Provisional Plan).
- 3) Quantities: In several cases the quantities or gross energy savings targets for a specific measure proposed in the 2022 Annual Plan (Provisional Plan) filing for Docket 5189 were higher than in the "Base Case" for the 2022 program year filed with the 2021-2023

EERMC 1-1, page 2
Portfolio-Level Planning

Three Year Plan in Docket 5076. In these cases, the quantities or gross energy savings target included in the 2022 Annual Plan (Provisional Plan) filing were applied in the attachments. In the cases where the "Base Case" for 2022 from the 2021-2023 Three Year plan included a greater number of quantities or gross energy savings target, that was utilized.¹

- 4) Non-incentive Costs: For non-incentive costs, these were scaled (increased) based on the proportional increase in the lifetime energy savings goals from the 2022 Annual Plan (Provisional Plan) to the attachments that have no budget constraints.² As a result, the overall electric budget and gas budget resulting from this analysis are 16% higher and 20% higher, respectively, than what filed with the Provisional Plan.

¹ CHP is an exception. In the base case scenario for 2022 in the Three Year Plan, 284,100 net lifetime MWh and \$10,642,914 in associated incentive costs were included. These were not included in this analysis. No CHP energy savings were included in this analysis. Given the typical sales cycles associated with CHP projects, the Company does not have a sufficient pipeline of CHP projects that could reasonably be delivered in 2022 (beyond the RI Grows CHP project) to warrant inclusion of expected budget or savings from CHP projects in this analysis.

² Pilots, Demonstrations, and Assessments were not scaled. The Rhode Island Infrastructure Bank Budget was also not scaled because this budget is based on statute and does not change. The Home Energy Reports programs were also not scaled because the program is currently at programmatic capacity in terms of participants.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5189
In Re: 2022 Annual Energy Efficiency Plan
Responses to EERMC's First Set of Data Requests
Issued on October 26, 2021

Attachments EERMC 1-1-3 & 1-1-4

Please refer to the Excel versions of Attachments EERMC 1-1-3 and EERMC 1-1-4.

Table E-1 - PROVISIONAL PLAN - Refined 11-5-2021
National Grid
Electric DSM Funding Sources in 2022 by Sector
\$(000)

	Income Eligible Residential	<u>Projections by Sector</u> Non-Income Eligible Residential	Commercial & Industrial	Total
(1) Projected Budget (from E-2):	\$19,661.5	\$40,151.0	\$82,133.4	\$141,945.9
Sources of Other Funding:				
(2) Projected DSM Commitments at Year-End 2021:	\$0.0	\$0.0	\$0.0	\$0.0
(3) Projected Year-End 2021 Fund Balance and Interest:	\$0.0	(\$7,628.9)	\$12,579.2	\$4,950.3
(4) Projected FCM Net Revenue from ISO-NE:	\$482.0	\$5,723.2	\$8,130.1	\$14,335.3
(5) Total Other Funding:	\$482.0	(\$1,905.7)	\$20,709.3	\$19,285.5
(6) Customer Funding Required:	\$19,179.5	\$42,056.7	\$61,424.1	\$122,660.4
(7) Forecasted kWh Sales:	246,778,762	2,930,118,727	4,162,361,309	7,339,258,798
(8) Energy Efficiency Program charge per kWh, excluding uncollectible recovery:				\$0.01671
(9) Proposed SRP Opex Factor per kWh, excluding uncollectible recovery:				<u>\$0.00000</u>
(10) Total Proposed Energy Efficiency Charge per kWh, excluding uncollectible recovery:				\$0.01671
(11) Currently Effective Uncollectible Rate				1.30%
(12) Proposed Energy Efficiency Program Charge per kWh, including Uncollectible Recovery:				\$0.01693
(13) Currently Effective Energy Efficiency Program Charge per kwh				<u>\$0.01113</u>
(14) Proposed Adjustment to Reflect Fully Reconciling Funding Mechanism				\$0.00580

Notes:

- (1) Projected Budget from E-2 includes OER and EERMC costs allocated to each sector based on forecasted sales.
- (2) DSM Commitments are projects that are under construction with anticipated completion in 2022.
- (3) Fund balance projections include projected revenue and spend through year end with Income Eligible sector set to \$0 through projected subsidization from other sectors, minus commitments which are illustrated separately on line (2). The Company proposes to refile this table with updated Fund Balance projections on November 17, 2021 as proposed in Section 10 of the Plan's Main Text.
- (4) The total projection of FCM revenue is allocated by kWh sales to each sector. FCM Revenue includes an estimated \$250,230 penalty. See prefiled testimony for additional details.
- (5) Line (2) + Line (3) + Line (4)
- (6) Line (1) - Line (5)
- (7) Per Company Forecast
- (8) Line (6) ÷ Line (7), truncated to 5 decimal places
- (9) Truncated to 5 decimal places
- (11) Proposed SRP Opex Factor is \$0.00000.
- (10) Line (8) + Line (9)
- (11) Uncollectible rate approved in Docket No 4770.
- (12) Line (10) ÷ (1-Line (11)), truncated to 5 decimal places
- (13) Currently Effective EE Charge includes System Reliability Factor and uncollectible recovery.
- (14) Line (12) - Line (13)

Table E-2 - PROVISIONAL PLAN - Refined 11-5-2021
National Grid
2022 Electric Energy Efficiency Program Budget (\$000)

	Program Planning & Administration	Marketing	Cost of services and product rebates/incentives provided to customers	Sales, Technical Assistance & Training	Evaluation & Market Research	Total Performance Incentive	Grand Total
Non-Income Eligible Residential							
Residential New Construction	\$108.3	\$28.1	\$700.9	\$596.6	\$95.2		\$1,529.0
ENERGY STAR® HVAC	\$119.6	\$333.0	\$4,301.6	\$578.6	\$312.3		\$5,645.1
EnergyWise	\$479.1	\$444.9	\$14,816.7	\$1,563.5	\$335.8		\$17,640.1
EnergyWise Multifamily	\$120.0	\$88.5	\$2,908.2	\$484.7	\$48.1		\$3,649.5
Residential Consumer Products	\$99.7	\$552.9	\$1,724.7	\$596.3	\$26.4		\$3,000.0
Home Energy Reports	\$55.9	\$13.1	\$0.0	\$2,551.5	\$20.8		\$2,641.3
Residential ConnectedSolutions	\$49.2	\$14.6	\$1,440.3	\$473.9	\$48.1		\$2,026.1
Energy Efficiency Education Programs	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		\$0.0
Residential Pilots	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		\$0.0
Community Based Initiatives - Residential	\$40.2	\$149.0	\$114.5	\$0.0	\$0.0		\$303.8
Comprehensive Marketing - Residential	\$1.5	\$293.8	\$0.0	\$0.0	\$0.0		\$295.3
Residential Performance Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Subtotal - Non-Income Eligible Residential	\$1,073.4	\$1,918.0	\$26,006.9	\$6,845.0	\$886.7	\$0.0	\$36,730.0
Income Eligible Residential							
Single Family - Income Eligible Services	\$401.3	\$160.8	\$11,741.9	\$2,341.2	\$86.3		\$14,731.5
Income Eligible Multifamily	\$135.9	\$16.8	\$4,032.0	\$409.8	\$47.4		\$4,641.9
Income Eligible Performance Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Subtotal - Income Eligible Residential	\$537.2	\$177.6	\$15,773.9	\$2,750.9	\$133.7	\$0.0	\$19,373.4
Commercial & Industrial							
Large Commercial New Construction	\$269.2	\$365.3	\$10,597.7	\$2,310.9	\$515.5		\$14,058.6
Large Commercial Retrofit	\$914.8	\$285.2	\$31,038.2	\$6,607.02	\$972.0		\$39,817.3
Small Business Direct Install	\$279.8	\$290.6	\$8,979.2	\$367.6	\$304.9		\$10,222.1
Commercial ConnectedSolutions	\$124.2	\$8.8	\$4,640.0	\$232.4	\$0.0		\$5,005.4
Commercial Pilots	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		\$0.0
Community Based Initiatives - C&I	\$13.4	\$49.6	\$38.2	\$0.0	\$0.0		\$101.2
Finance Costs	\$0.0	\$0.0	\$2,381.7	\$0.0	\$0.0		\$2,381.7
Commercial Workforce Development	\$0.0	\$0.0	\$0.0	\$187.6	\$0.0		\$187.6
Commercial & Industrial Performance Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$5,500.0	\$5,500.0
Subtotal - Commercial & Industrial	\$1,601.3	\$999.5	\$57,675.0	\$9,705.5	\$1,792.4	\$5,500.0	\$77,273.7
Regulatory							
OER	\$2,141.3	\$0.0	\$0.0	\$0.0	\$0.0		\$2,141.3
EERMC	\$1,427.5	\$0.0	\$0.0	\$0.0	\$0.0		\$1,427.5
Rhode Island Infrastructure Bank	\$0.0	\$0.0	\$5,000.0	\$0.0	\$0.0		\$5,000.0
Subtotal - Regulatory	\$3,568.8	\$0.0	\$5,000.0	\$0.0	\$0.0	\$0.0	\$8,568.8
Grand Total	\$6,780.7	\$3,095.2	\$104,455.8	\$19,301.5	\$2,812.8	\$5,500.0	\$141,945.9

Notes:

- (1) 2022 Large Commercial Retrofit Commitments (\$000):
- (2) For more information on Finance Costs, please refer to Attachment 2, Section 9.
- (3) OER and EERMC total 3.0% of customers' EE Program Charge collected on Table E-1, minus 3%.
- (4) Finance Costs are detailed in Table E-9. Finance Costs include an injection of \$2M into the Large C&I Revolving Loan Fund. Without this injection the Large C&I Revolving Loan Fund is projected to be negative by the end of 2022.
- (5) Demonstrations and Assessments budgets are included in specific program level budgets listed above. More information on Demonstration and Assessments descriptions, budgets, and which program level budget they are included in can be found in Attachment 8.
- (6) Based on the state's System Reliability and Least Cost procurement statute (amended in 2021), funds transferred to the Rhode Island Infrastructure Bank are now classified under Regulatory costs.

Table E-3 - PROVISIONAL PLAN - Refiled 11-5-2021
National Grid
Derivation of the 2022 Spending and Implementation Budgets (\$000)

	Proposed 2022 Budget From E-2	Commitments	Regulatory Costs	Performance Incentive	Eligible Sector Spending Budget for Performance Incentive on E-8B	Implementation Expenses for Cost- Effectiveness on E-5
Non-Income Eligible Residential						
Residential New Construction	\$1,529.0					\$1,529.0
ENERGY STAR® HVAC	\$5,645.1					\$5,645.1
EnergyWise	\$17,640.1					\$17,640.1
EnergyWise Multifamily	\$3,649.5					\$3,649.5
Residential Consumer Products	\$3,000.0					\$3,000.0
Home Energy Reports	\$2,641.3					\$2,641.3
Residential ConnectedSolutions	\$2,026.1					\$2,026.1
Energy Efficiency Education Programs	\$0.0					\$0.0
Residential Pilots	\$0.0					\$0.0
Community Based Initiatives - Residential	\$303.8					\$303.8
Comprehensive Marketing - Residential	\$295.3					\$295.3
Residential Performance Incentive	\$0.0			\$0.0		\$0.0
Subtotal - Non-Income Eligible Residential	\$36,730.0	\$0.0	\$0.0	\$0.0	\$34,679.1	\$36,730.0
Income Eligible Residential						
Single Family - Income Eligible Services	\$14,731.5					\$14,731.5
Income Eligible Multifamily	\$4,641.9					\$4,641.9
Income Eligible Performance Incentive	\$0.0			\$0.0		\$0.0
Subtotal - Income Eligible Residential	\$19,373.4	\$0.0	\$0.0	\$0.0	\$19,373.4	\$19,373.4
Commercial & Industrial						
Large Commercial New Construction	\$14,058.6	\$0.0				\$14,058.6
Large Commercial Retrofit	\$39,817.3	\$0.0				\$39,817.3
Small Business Direct Install	\$10,222.1	\$0.0				\$10,222.1
Commercial ConnectedSolutions	\$5,005.4					\$5,005.4
Commercial Pilots	\$0.0					\$0.0
Community Based Initiatives - C&I	\$101.2					\$101.2
Finance Costs	\$2,381.7					\$2,381.7
Commercial Workforce Development	\$187.6					\$187.6
Commercial & Industrial Performance Incentive	\$5,500.0			\$5,500.0		\$0.0
Subtotal - Commercial & Industrial	\$77,273.7	\$0.0	\$0.0	\$5,500.0	\$66,737.3	\$71,773.7
Regulatory						
OER	\$2,141.3		\$2,141.3			\$2,141.3
EERMC	\$1,427.5		\$1,427.5			\$1,427.5
Rhode Island Infrastructure Bank	\$5,000.0		\$5,000.0			\$5,000.0
Subtotal - Regulatory	\$8,568.8	\$0.0	\$8,568.8	\$0.0	\$0.0	\$8,568.8
Grand Total	\$141,945.9	\$0.0	\$8,568.8	\$5,500.0	\$120,789.8	\$136,445.9

Notes:

- (1) Eligible Sector Spending Budget = Total Budget from E-2 minus commitments, regulatory costs, pilots, assessments, Residential ConnectedSolutions, Commercial ConnectedSolutions, Performance Incentive
- (2) Eligible Sector Spending Budget does not include assessments, see Attachment 8 for assessments budgets.
- (3) Implementation Expenses = Total Budget from E-2 minus commitments and Performance Incentive.

Table E-4 - PROVISIONAL PLAN - Refiled 11-5-2021
National Grid
Proposed 2022 Budget Compared to Approved 2021 Budget (\$000)

	Proposed Implementation Budget 2022	Approved Implementation Budget 2021	Difference
Non-Income Eligible Residential			
Residential New Construction	\$1,529.0	\$1,611.3	-\$82.3
ENERGY STAR® HVAC	\$5,645.1	\$3,487.8	\$2,157.3
EnergyWise	\$17,640.1	\$15,692.2	\$1,947.9
EnergyWise Multifamily	\$3,649.5	\$2,804.3	\$845.2
ENERGY STAR® Lighting	\$0.0	\$5,274.8	-\$5,274.8
Residential Consumer Products	\$3,000.0	\$2,681.2	\$318.8
Home Energy Reports	\$2,641.3	\$2,641.7	-\$0.4
Residential ConnectedSolutions	\$2,026.1	\$1,920.5	\$105.6
Energy Efficiency Education Programs	\$0.0	\$40.0	-\$40.0
Residential Pilots	\$0.0	\$0.0	\$0.0
Community Based Initiatives - Residential	\$303.8	\$226.2	\$77.6
Comprehensive Marketing - Residential	\$295.3	\$332.7	-\$37.4
Subtotal - Non-Income Eligible Residential	\$36,730.0	\$36,712.7	\$17.4
Income Eligible Residential			
Single Family - Income Eligible Services	\$14,731.5	\$12,846.1	\$1,885.4
Income Eligible Multifamily	\$4,641.9	\$3,549.0	\$1,092.9
Subtotal - Income Eligible Residential	\$19,373.4	\$16,395.1	\$2,978.3
Commercial & Industrial			
Large Commercial New Construction	\$14,058.6	\$8,188.2	\$5,870.4
Large Commercial Retrofit	\$39,817.3	\$31,565.2	\$8,252.0
Small Business Direct Install	\$10,222.1	\$8,883.6	\$1,338.5
Commercial ConnectedSolutions	\$5,005.4	\$2,990.1	\$2,015.3
Community Based Initiatives - C&I	\$101.2	\$74.5	\$26.6
Commercial Pilots	\$0.0	\$0.0	\$0.0
Finance Costs	\$2,381.7	\$5,000.0	-\$2,618.3
Commercial Workforce Development	\$187.6	\$0.0	\$187.6
Subtotal Commercial & Industrial	\$71,773.7	\$56,701.6	\$15,072.1
Regulatory			
EERMC	\$1,427.5	\$738.5	\$689.0
OER	\$2,141.3	\$738.5	\$1,402.8
Rhode Island Infrastructure Bank	\$5,000.0	\$0.0	\$5,000.0
Subtotal Regulatory	\$8,568.8	\$1,477.0	\$7,091.8
TOTAL IMPLEMENTATION BUDGET	\$136,445.9	\$111,286.3	\$25,159.6
OTHER EXPENSE ITEMS			
Commitments	\$0.0	\$0.0	\$0.0
Company Incentive	\$5,500.0	\$5,500.0	\$0.0
Subtotal - Other Expense Items	\$5,500.0	\$5,500.0	\$0.0
TOTAL BUDGET	\$141,945.9	\$116,786.3	\$25,159.6

Notes:

- (1) Program Implementation Budget excludes Commitments, Company Incentive; derived on Table E-3
- (2) Total Budget includes Implementation, Commitments; illustrated on Table E-3
- (3) The Energy Star® Lighting program year-over-year decrease is due to the phase out of the program in 2022.
- (4) The increased budget for the Large Commercial and Industrial New Construction program can be attributed to a roughly \$3,800,000 increase in incentives for HVAC, controls, industrial process, and other non-lighting measures, plus associated program administration costs to implement a more complex measure mix.
- (5) The Large Commercial Retrofit program decreased primarily due to roughly a \$2,600,000 reduction in lighting incentives due to lower anticipated volume as the market becomes increasingly saturated. The CHP budget also decreased approximately \$500,000 because there was a CHP retrofit in the 2021 plan. This has been partially offset by increased non-lighting incentive budgets and associated program administration costs to implement a more complex measure mix.
- (6) The increase in the 2022 Commercial and Industrial ConnectedSolutions program budget can be attributed to the higher participation in the Daily Dispatch demand response offering. In total, the customer incentive payments represent approximately 98% of the cost associated with this measure.
- (7) The Finance Cost decline is driven by a reallocation of \$5M in RIIB from this line to the RIIB line under regulatory due to the updated the Least Cost Procurement statute (amended in 2021).
- (8) The increase in allocation of funds to the OER is made consistent with the state's System Reliability and Least Cost procurement statute (amended in 2021), which provides that the Commission shall allocate an amount not to exceed three percent (3.0%) from authorized demand-side management gas and electric funds authorized.
- (9) The Rhode Island Infrastructure Bank addition is driven by a reallocation of \$5M from RIIB from the Finance Cost Line to the Rhode Island Infrastructure Bank line under the regulatory sector to comply with the Least Cost Procurement statute (amended in 2021).

Table E-5 - Primary - PROVISIONAL PLAN - Refiled 11-5-2021
National Grid
Calculation of 2022 Program Year Cost-Effectiveness
All Dollar Values in (\$000)

	RI Test Benefit/ Cost ¹	Total Benefit	Program Implementation Expenses ²	Customer Contribution	Performance Incentive	¢/Lifetime kWh
Non-Income Eligible Residential						
Residential New Construction	2.04	\$4,232.1	\$1,529.0	\$547.2		13.9
ENERGY STAR® HVAC	2.17	\$17,126.8	\$5,645.1	\$2,244.4		9.3
EnergyWise	1.04	\$18,885.0	\$17,640.1	\$591.2		121.7
EnergyWise Multifamily	1.61	\$6,817.3	\$3,649.5	\$591.1		17.7
Home Energy Reports	2.04	\$5,401.4	\$2,641.3	\$0.0		9.8
Residential Consumer Products	2.11	\$9,713.3	\$3,000.0	\$1,606.6		9.7
Residential ConnectedSolutions	1.66	\$3,358.7	\$2,026.1	\$0.0		N/A
Energy Efficiency Education Programs			\$0.0			
Residential Pilots			\$0.0			
Community Based Initiatives - Residential			\$303.8			
Comprehensive Marketing - Residential			\$295.3			
Non-Income Eligible Residential SUBTOTAL	1.55	\$65,534.6	\$36,730.0	\$5,580.5	\$0.0	19.8
Income Eligible Residential						
Single Family - Income Eligible Services	1.96	\$28,806.3	\$14,731.5	\$0.0		34.0
Income Eligible Multifamily	2.04	\$9,466.0	\$4,641.9	\$0.0		15.4
Income Eligible Residential SUBTOTAL	1.98	\$38,272.3	\$19,373.4	\$0.0	\$0.0	26.4
Commercial & Industrial						
Large Commercial New Construction	2.95	\$45,059.4	\$14,058.6	\$1,195.9		6.1
Large Commercial Retrofit	1.97	\$107,403.8	\$39,817.3	\$14,711.3		11.9
Small Business Direct Install	1.08	\$13,275.3	\$10,222.1	\$2,017.8		18.0
Commercial ConnectedSolutions	2.66	\$13,335.5	\$5,005.4	\$0.0		N/A
Commercial Pilots			\$0.0			
Community Based Initiatives - C&I			\$101.2			
Finance Costs			\$2,381.7			
Commercial Workforce Development			\$187.6			
C&I SUBTOTAL	1.88	\$179,073.9	\$71,773.7	\$17,925.0	\$5,500.0	11.5
Regulatory						
OER			\$2,141.3			
EERMC			\$1,427.5			
Rhode Island Infrastructure Bank			\$5,000.0			
Regulatory SUBTOTAL			\$8,568.8			
TOTAL	1.71	\$282,880.8	\$136,445.9	\$23,505.6	\$5,500.0	15.0

Notes:

- (1) RI Test B/C Test = Total Benefits from Table E-6A / Program Implementation Expenses from Table E-3
Also includes effects of free-ridership and spillover.
- (2) For Implementation Expenses derivation, see Table E-3.

Table E-5 - Secondary - PROVISIONAL PLAN - Refiled 11-5-2021
National Grid
Calculation of 2022 Program Year Cost-Effectiveness with Economic Benefits Included
All Dollar Values in (\$000)

	RI Test Benefit/ Cost ¹	Total Benefit	Program Implementation Expenses ²	Customer Contribution	Performance Incentive	¢/Lifetime kWh
Non-Income Eligible Residential						
Residential New Construction	3.07	\$6,372.7	\$1,529.0	\$547.2		13.9
ENERGY STAR® HVAC	3.19	\$25,142.8	\$5,645.1	\$2,244.4		9.3
EnergyWise	1.94	\$35,290.3	\$17,640.1	\$591.2		121.7
EnergyWise Multifamily	2.76	\$11,707.6	\$3,649.5	\$591.1		17.7
Home Energy Reports	3.04	\$8,042.7	\$2,641.3	\$0.0		9.8
Residential Consumer Products	3.10	\$14,273.2	\$3,000.0	\$1,606.6		9.7
Residential ConnectedSolutions	2.49	\$5,040.3	\$2,026.1	\$0.0		N/A
Energy Efficiency Education Programs			\$0.0			
Residential Pilots			\$0.0			
Community Based Initiatives - Residential			\$303.8			
Comprehensive Marketing - Residential			\$295.3			
Non-Income Eligible Residential SUBTOTAL	2.50	\$105,869.7	\$36,730.0	\$5,580.5	\$0.0	19.8
Income Eligible Residential						
Single Family - Income Eligible Services	2.82	\$41,475.4	\$14,731.5	\$0.0		34.0
Income Eligible Multifamily	3.23	\$14,989.9	\$4,641.9	\$0.0		15.4
Income Eligible Residential SUBTOTAL	2.91	\$56,465.3	\$19,373.4	\$0.0	\$0.0	26.4
Commercial & Industrial						
Large Commercial New Construction	5.82	\$88,781.5	\$14,058.6	\$1,195.9		6.1
Large Commercial Retrofit	6.20	\$338,344.0	\$39,817.3	\$14,711.3		11.9
Small Business Direct Install	2.73	\$33,412.8	\$10,222.1	\$2,017.8		18.0
Commercial ConnectedSolutions	4.85	\$24,297.3	\$5,005.4	\$0.0		N/A
Commercial Pilots			\$0.0			
Community Based Initiatives - C&I			\$101.2			
Finance Costs			\$2,381.7			
Commercial Workforce Development			\$187.6			
C&I SUBTOTAL	5.09	\$484,835.6	\$71,773.7	\$17,925.0	\$5,500.0	11.5
Regulatory						
OER			\$2,141.3			
EERMC			\$1,427.5			
Rhode Island Infrastructure Bank			\$5,000.0			
Regulatory SUBTOTAL			\$8,568.8			
TOTAL	3.91	\$647,170.5	\$136,445.9	\$23,505.6	\$5,500.0	15.0

Notes:

- (1) RI Test B/C Test = Total Benefits from Table E-6A including Economic Benefits / Program Implementation Expenses from Table E-3
Also includes effects of free-ridership and spillover.
- (2) For Implementation Expenses derivation, see Table E-3.

Table E-5A - PROVISIONAL PLAN - Refiled 11-5-2021
National Grid
Calculation of 2022 Program Year Cost-Effectiveness with TRC Test
All Dollar Values in (\$000)

	TRC Benefit/ Cost ¹	Total Benefit	Program Implementation Expenses ²	Customer Contribution	Performance Incentive	¢/Lifetime kWh
Non-Income Eligible Residential						
Residential New Construction	1.62	\$3,371.2	\$1,529.0	\$547.2		13.9
ENERGY STAR® HVAC	1.58	\$12,430.9	\$5,645.1	\$2,244.4		9.3
EnergyWise	0.78	\$14,266.4	\$17,640.1	\$591.2		121.7
EnergyWise Multifamily	1.33	\$5,629.9	\$3,649.5	\$591.1		17.7
Home Energy Reports	1.38	\$3,642.0	\$2,641.3	\$0.0		9.8
Residential Consumer Products	1.52	\$7,013.3	\$3,000.0	\$1,606.6		9.7
Residential ConnectedSolutions	1.66	\$3,355.2	\$2,026.1	\$0.0		N/A
Energy Efficiency Education Programs			\$0.0			0.0
Residential Pilots			\$0.0			0.0
Community Based Initiatives - Residential			\$303.8			0.0
Comprehensive Marketing - Residential			\$295.3			0.0
Non-Income Eligible Residential SUBTOTAL	1.17	\$49,708.9	\$36,730.0	\$5,580.5	\$0.0	19.8
Income Eligible Residential						
Single Family - Income Eligible Services	1.67	\$24,637.6	\$14,731.5	\$0.0		34.0
Income Eligible Multifamily	1.74	\$8,054.7	\$4,641.9	\$0.0		15.4
Income Eligible Residential SUBTOTAL	1.69	\$32,692.3	\$19,373.4	\$0.0	\$0.0	26.4
Commercial & Industrial						
Large Commercial New Construction	2.27	\$34,597.6	\$14,058.6	\$1,195.9		6.1
Large Commercial Retrofit	1.56	\$85,140.8	\$39,817.3	\$14,711.3		11.9
Small Business Direct Install	0.80	\$9,850.4	\$10,222.1	\$2,017.8		18.0
Commercial ConnectedSolutions	2.66	\$13,335.5	\$5,005.4			
Commercial Pilots			\$0.0			
Community Based Initiatives - C&I			\$101.2			
Finance Costs			\$2,381.7			
Commercial Workforce Development			\$187.6			
C&I SUBTOTAL	1.50	\$142,924.3	\$71,773.7	\$17,925.0	\$5,500.0	11.5
Regulatory						
OER			\$2,141.3			
EERMC			\$1,427.5			
Rhode Island Infrastructure Bank			\$5,000.0			
Regulatory SUBTOTAL			\$8,568.8			
TOTAL	1.36	\$225,325.5	\$136,445.9	\$23,505.6	\$5,500.0	15.0

(1) TRC B/C Test omits societal benefits that are monetized in the RI Test, including non-embedded emissions (CO2 and Nox), and economic benefits. Also includes effects of free-ridership and spillover.

(2) For Implementation Expenses derivation, see Table E-3.

Table E-6 - PROVISIONAL PLAN - Refiled 11-5-2021
National Grid
Summary of 2022 Benefits by Program (Energy Efficiency Measures)

	Benefits (000's)																			
	Total	Total (Economic Excluded)	Capacity					Energy				Non Electric				Societal				
			Summer Generation	Capacity DRIPE	Trans	Dist	Reliability	Winter		Summer		Electric Energy DRIPE	Natural Gas	Oil	Other Resource	Non Resource	Carbon	NOx	Economic	
								Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak									
Non-Income Eligible Residential																				
Residential New Construction	\$6,373	\$4,232	\$48	\$43	\$94	\$93	\$1	\$369	\$485	\$144	\$110	\$289	\$0	\$325	\$1,304	\$66	\$833	\$28	\$2,141	
ENERGY STAR® HVAC	\$25,143	\$17,127	\$238	\$210	\$467	\$463	\$3	\$2,589	\$3,197	\$286	\$239	\$2,018	\$637	\$1,626	-\$20	\$479	\$4,518	\$178	\$8,016	
EnergyWise	\$35,290	\$18,885	\$170	\$180	\$334	\$331	\$2	\$293	\$301	\$203	\$178	\$343	\$0	\$10,286	\$235	\$1,407	\$4,094	\$524	\$16,405	
EnergyWise Multifamily	\$11,708	\$6,817	\$111	\$99	\$215	\$213	\$1	\$682	\$850	\$123	\$104	\$540	\$0	\$632	\$48	\$2,010	\$1,143	\$44	\$4,890	
Home Energy Reports	\$8,043	\$5,401	\$207	\$450	\$365	\$362	\$6	\$646	\$531	\$251	\$183	\$640	\$0	\$0	\$0	\$0	\$1,736	\$23	\$2,641	
Residential Consumer Products	\$14,273	\$9,713	\$335	\$719	\$752	\$745	\$9	\$903	\$981	\$485	\$487	\$1,496	\$15	\$42	\$41	\$4	\$2,663	\$37	\$4,560	
Non-Income Eligible Residential SUBTOTAL	\$100,829	\$62,176	\$1,109	\$1,700	\$2,228	\$2,207	\$22	\$5,482	\$6,347	\$1,493	\$1,302	\$5,326	\$651	\$12,911	\$1,609	\$3,967	\$14,987	\$835	\$38,653	
Income Eligible Residential																				
Single Family - Income Eligible Services	\$41,475	\$28,806	\$309	\$282	\$607	\$601	\$4	\$983	\$1,089	\$461	\$475	\$900	\$88	\$5,895	\$437	\$12,508	\$3,839	\$330	\$12,669	
Income Eligible Multifamily	\$14,990	\$9,466	\$23	\$20	\$44	\$44	\$0	\$983	\$1,260	\$31	\$26	\$689	\$0	\$642	\$53	\$4,240	\$1,363	\$48	\$5,524	
Income Eligible Residential SUBTOTAL	\$56,465	\$38,272	\$332	\$302	\$651	\$645	\$4	\$1,966	\$2,349	\$491	\$501	\$1,588	\$88	\$6,537	\$490	\$16,748	\$5,202	\$378	\$18,193	
Commercial & Industrial																				
Large Commercial New Construction	\$88,782	\$45,059	\$1,797	\$1,575	\$3,522	\$3,489	\$20	\$6,356	\$3,802	\$4,182	\$2,574	\$5,593	-\$376	\$0	\$5	\$2,059	\$10,334	\$128	\$43,722	
Large Commercial Retrofit	\$338,344	\$107,404	\$4,056	\$8,173	\$9,043	\$8,960	\$102	\$9,709	\$6,802	\$6,601	\$4,029	\$14,597	-\$2,787	\$0	\$36	\$15,821	\$22,167	\$96	\$230,940	
Small Business Direct Install	\$33,413	\$13,275	\$265	\$629	\$607	\$602	\$8	\$1,458	\$852	\$1,081	\$565	\$2,195	-\$412	\$0	\$0	\$2,002	\$3,409	\$16	\$20,138	
C&I SUBTOTAL	\$460,538	\$165,738	\$6,118	\$10,377	\$13,172	\$13,051	\$130	\$17,523	\$11,456	\$11,863	\$7,167	\$22,385	-\$3,576	\$0	\$41	\$19,882	\$35,910	\$240	\$294,800	
TOTAL	\$617,833	\$266,187	\$7,559	\$12,379	\$16,051	\$15,903	\$156	\$24,971	\$20,151	\$13,847	\$8,970	\$29,299	-\$2,836	\$19,447	\$2,140	\$40,596	\$56,099	\$1,452	\$351,646	

Table E-6A - PROVISIONAL PLAN - Refined 11-5-2021
National Grid
Summary of 2022 Impacts by Program (Energy Efficiency Measures)

	Load Reduction in kW		Electric Energy Savings				Gas Saved		Oil Saved		Propane Saved		Total Net Savings (Electric, Gas, Oil, Propane)	
			MWh		MMBtu		MMBtu		MMBtu		MMBtu		MMBtu	
	Summer	Winter	Annual	Lifetime	Annual	Lifetime	Annual	Lifetime	Annual	Lifetime	Annual	Lifetime	Annual	Lifetime
Non-Income Eligible Residential														
Residential New Construction	74	259	867	14,947	2,957	50,998	-	-	521	13,016	1,321	33,013	4,798	97,027
ENERGY STAR® HVAC	317	1,155	5,124	85,226	17,483	290,790	4,757	71,471	4,419	66,835	(39)	(504)	26,621	428,592
EnergyWise	452	520	2,901	14,984	9,898	51,126	-	-	21,778	417,412	234	3,721	31,910	472,260
EnergyWise Multifamily	198	442	1,836	23,986	6,266	81,842	-	-	1,046	25,343	-	-	7,312	107,185
Home Energy Reports	3,692	5,706	26,852	26,852	91,619	91,619	-	-	-	-	-	-	91,619	91,619
Residential Consumer Products	1,118	826	6,885	47,554	23,491	162,256	84	1,672	85	1,683	25	370	23,685	165,981
Non-Income Eligible Residential SUBTOTAL	5,850	8,908	44,465	213,550	151,714	728,631	4,841	73,143	27,849	524,290	1,542	36,601	185,945	1,362,664
Income Eligible Residential														
Single Family - Income Eligible Services	525	541	3,623	43,293	12,362	147,715	1,076	13,117	12,469	239,250	85	1,526	25,991	401,609
Income Eligible Multifamily	55	553	1,899	30,142	6,479	102,844	-	-	1,239	25,915	-	-	7,718	128,759
Income Eligible Residential SUBTOTAL	580	1,095	5,522	73,435	18,841	250,559	1,076	13,117	13,708	265,165	85	1,526	33,709	530,368
Commercial & Industrial														
Large Commercial New Construction	2,380	1,695	16,700	251,493	56,982	858,094	(3,467)	(45,071)	-	-	-	-	53,515	813,023
Large Commercial Retrofit	12,492	10,570	60,374	457,434	205,995	1,560,766	(51,334)	(335,613)	-	-	-	-	154,661	1,225,153
Small Business Direct Install	950	743	10,420	68,066	35,553	232,242	(8,271)	(49,628)	-	-	-	-	27,282	182,613
C&I SUBTOTAL	15,822	13,009	87,494	776,993	298,530	2,651,101	(63,072)	(430,312)	-	-	-	-	235,458	2,220,790
TOTAL	22,252	23,012	137,481	1,063,978	469,085	3,630,292	(57,155)	(344,052)	41,556	789,455	1,627	38,127	455,112	4,113,822

Notes:
1) Lifetime savings are equal to annual savings multiplied by the expected life of measures expected to be installed in each program.

Table E-6B - PROVISIONAL PLAN - Refined 11-5-2021
National Grid
Summary of 2022 Demand Response Benefits and Savings

	Benefits (000's)															Load Reduction (MW)	MWh Saved		
	Total	Total (Economic Excluded)	Summer Generation	Capacity				Energy				Non Electric	Societal				Summer	Annual	Lifetime
				Capacity DRIPE	Trans	Dist	Reliability	Winter		Summer			Energy DRIPE	Carbon	Economic				
								Peak	Off Peak	Peak	Off Peak								
Non-Income Eligible Residential																			
Residential Connected	\$5,040	\$3,357	\$287	\$1,177	\$827	\$819	\$243	\$0	\$0	\$0	\$0	\$0	\$0	\$3	\$1,682	8.4	59.4	59.4	
Commercial & Industrial																			
Commercial Connected	\$24,297	\$13,335	\$717	\$2,943	\$4,236	\$4,197	\$1,242	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,962	42.8	0.0	0.0	
TOTAL	\$29,338	\$16,692	\$1,003	\$4,120	\$5,063	\$5,016	\$1,485	\$0	\$0	\$0	\$0	\$0	\$0	\$3	\$12,643	51.2	59.4	59.4	

Table E-7 - PROVISIONAL PLAN - Refiled 11-5-2021
National Grid
Comparison of 2022 and 2021 Goals and Tracking

	Proposed 2022 Goal		Proposed 2022 Tracking				Approved 2021				Difference			
	Lifetime Electric Energy Savings (MWh)	Active Demand Response (kW)	Annual Electric Energy Savings (MWh)	Annual Passive Summer Demand Savings (kW)	Total Net Lifetime Energy Savings (MMBtu)	Planned Unique Participants	Lifetime Electric Energy Savings (MWh)	Annual Electric Energy Savings (MWh)	Annual Passive Summer Demand Savings (kW)	Active Demand Response (kW)	Lifetime Electric Energy Savings (MWh)	Annual Electric Energy Savings (MWh)	Annual Passive Summer Demand Savings (kW)	Active Demand Response (kW)
Non-Income Eligible Residential														
Residential New Construction	14,947		867	74	97,027	462	18,088	979	66		-3,141	-113		8
ENERGY STAR® HVAC	85,226		5,124	317	428,592	5,229	51,309	3,181	204		33,917	1,943		112
EnergyWise	14,984		2,901	452	472,260	12,000	14,385	2,841	445		599	60		7
EnergyWise Multifamily	23,986		1,836	198	107,185	3,600	16,307	1,240	158		7,679	596		40
Home Energy Reports	26,852		26,852	3,692	91,619	323,248	26,852	26,852	3,692		0	0		0
ENERGY STAR® Lighting	0		0	0	0	0	26,801	11,533	1,872		-26,801	-11,533		-1,872
Residential Consumer Products	47,554		6,885	1,118	165,981	34,692	38,130	5,926	1,019		9,424	958		100
Residential ConnectedSolutions		8,355				4,178				5,431				2,924
Non-Income Eligible Residential SUBTOTAL	213,550	8,355	44,465	5,850	1,362,664	383,409	191,872	52,553	7,455	5,431	21,678	-8,088	-1,605	2,924
Income Eligible Residential														
Single Family - Income Eligible Services	43,293		3,623	525	401,609	3,583	36,909	3,120	457		6,384	503		67
Income Eligible Multifamily	30,142		1,899	55	128,759	3,600	22,545	1,554	70		7,596	345		-15
Income Eligible Residential SUBTOTAL	73,435		5,522	580	530,368	7,183	59,454	4,674	527		13,981	848		52
Commercial & Industrial														
Large Commercial New Construction	251,493		16,700	2,380	813,023	96	189,441	11,837	1,856		62,052	4,864		524
Large Commercial Retrofit	457,434		60,374	12,492	1,225,153	2,239	744,562	59,496	11,648		-287,127	878		844
Small Business Direct Install	68,066		10,420	950	182,613	490	105,134	9,696	1,134		-37,068	724		-184
Commercial ConnectedSolutions		42,800				180				33,600				9,200
C&I SUBTOTAL	776,993	42,800	87,494	15,822	2,220,790	3,005	1,039,136	81,029	14,638	33,600	-262,142	6,465	1,184	9,200
TOTAL	1,063,978	51,155	137,481	22,252	4,113,822	393,597	1,290,462	138,256	22,621	39,031	-226,484	-775	-369	12,124

- Notes:
- (1) Planned 2022 participation takes into account net-to-gross and estimates unique participation by taking into account 2021 unique customer accounts to savings ratios. Therefore the number of planned measures may be more than the estimated participants shown. For measure counts please view the widget tables in Attachments 1 and 2. Table E-7 no longer includes a comparison to the previous year's participation. Due to the way unique participation is calculated it is not possible to compare year-over-year results.
 - (2) There are additional Low Income participants in Residential New Construction.
 - (3) A customer can participate in more than one program, for example, Residential Consumer Products and and Home Energy Reports, therefore the population reached can be more than 100%.

Table E-8A - PROVISIONAL PLAN - Refined 11-5-2021
National Grid
2022 Electric PIM Benefits, Allocations, and Categorization (\$000)

	(1)	(2)	(3)		(4)	(5)	(6)		(7)		(8)		(9)	(10)	(11)	(12)	(13)		(14)	(15)	(16)	(17)	(18)
	Summer Generation	Capacity DRIPE	Capacity	Distribution	Reliability	Winter Peak Energy	Winter Off Peak Energy	Summer Peak Energy	Summer Off Peak Energy	Electric Energy DRIPE	Utility NEIs	Utility NEIs	Natural Gas and DRIPE	Oil and Oil DRIPE	Propane and Water	Non Resource	Carbon	NOx	Economic				
Non-Income Eligible Residential																							
Residential New Construction	\$48	\$43	\$94	\$93	\$1	\$369	\$485	\$144	\$110	\$289	\$0	\$0	\$325	\$1,304	\$66	\$833	\$28	\$2,141					
ENERGY STAR® HVAC	\$238	\$210	\$467	\$463	\$3	\$2,589	\$3,197	\$286	\$239	\$2,018	\$0	\$637	\$1,626	-\$20	\$479	\$4,518	\$178	\$8,016					
EnergyWise	\$170	\$180	\$334	\$331	\$2	\$293	\$301	\$203	\$178	\$343	\$0	\$0	\$10,286	\$235	\$1,407	\$4,094	\$524	\$16,405					
EnergyWise Multifamily	\$111	\$99	\$215	\$213	\$1	\$682	\$850	\$123	\$104	\$540	\$0	\$0	\$632	\$48	\$2,010	\$1,143	\$44	\$4,890					
Home Energy Reports	\$207	\$450	\$365	\$362	\$6	\$646	\$531	\$251	\$183	\$640	\$0	\$0	\$0	\$0	\$0	\$1,736	\$23	\$2,641					
Residential Consumer Products	\$335	\$719	\$752	\$745	\$9	\$903	\$981	\$485	\$487	\$1,496	\$0	\$15	\$42	\$41	\$4	\$2,663	\$37	\$4,560					
Income Eligible Residential SUBTOTAL	\$1,109	\$1,700	\$2,228	\$2,207	\$22	\$5,482	\$6,347	\$1,493	\$1,302	\$5,326	\$0	\$651	\$12,911	\$1,609	\$3,967	\$14,987	\$835	\$38,653					
Income Eligible Residential																							
Single Family - Income Eligible Services	\$309	\$282	\$607	\$601	\$4	\$983	\$1,089	\$461	\$475	\$900	\$273	\$88	\$5,895	\$437	\$12,235	\$3,839	\$330	\$12,669					
Income Eligible Multifamily	\$23	\$20	\$44	\$44	\$0	\$983	\$1,260	\$31	\$26	\$689	\$341	\$0	\$642	\$53	\$3,899	\$1,363	\$48	\$5,524					
Income Eligible Residential SUBTOTAL	\$332	\$302	\$651	\$645	\$4	\$1,966	\$2,349	\$491	\$501	\$1,588	\$614	\$88	\$6,537	\$490	\$16,134	\$5,202	\$378	\$18,193					
Commercial & Industrial																							
Large Commercial New Construction	\$1,797	\$1,575	\$3,522	\$3,489	\$20	\$6,356	\$3,802	\$4,182	\$2,574	\$5,593	\$0	-\$376	\$0	\$5	\$2,059	\$10,334	\$128	\$43,722					
Large Commercial Retrofit	\$4,056	\$8,173	\$9,043	\$8,960	\$102	\$9,709	\$6,802	\$6,601	\$4,029	\$14,597	\$0	-\$2,787	\$0	\$36	\$15,821	\$22,167	\$96	\$230,940					
Small Business Direct Install	\$265	\$629	\$607	\$602	\$8	\$1,458	\$852	\$1,081	\$565	\$2,195	\$0	-\$412	\$0	\$0	\$2,002	\$3,409	\$16	\$20,138					
C&I SUBTOTAL	\$6,118	\$10,377	\$13,172	\$13,051	\$130	\$17,523	\$11,456	\$11,863	\$7,167	\$22,385	\$0	-\$3,576	\$0	\$41	\$19,882	\$35,910	\$240	\$294,800					
Included in PIM? (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N				
Percent Application in PIM	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	50%	50%	50%	0%	0%	0%	0%				
Category	Electric Utility System Benefits	Resource Benefits	Resource Benefits	Resource Benefits	NA	NA	NA	NA															

Notes
From 2022 Benefit-Cost Model, reflects benefits in Table E-6

Table E-8B - PROVISIONAL PLAN - Refiled 11-5-2021
National Grid
2022 Electric PIM Costs

	(1)	(2)	(3)
	Costs (\$)		
	Eligible Spending Budget from Table E-3	Regulatory Costs	Total Costs for PIM Calculations
Non-Income Eligible Residential SUBTOTAL	\$34,679,078	\$2,856,265	\$37,535,343
Income Eligible Residential SUBTOTAL	\$19,373,401	\$2,856,265	\$22,229,666
C&I SUBTOTAL	\$66,737,286	\$2,856,265	\$69,593,551
Included in PIM? (Y/N)	Y	Y	Y

Notes

Source is Table E-2 and E-3. Regulatory costs allocated equally to each sector.

Table E-8C - PROVISIONAL PLAN - Refiled 11-5-2021
National Grid
2022 Electric PIM and SQA

Sector PI = min(Payout Cap(j), [Actual Net Benefits* Design Payout Rate(g) * Payout Rate Adjustment(i)])

Sector	Planned Eligible Benefits		Planned Eligible Costs	Planned Eligible Net Benefits (4)	Design Performance Achievement	Design Performance Payout	Design Payout Rate	Design Payout Rate Thresholds	Payout Rate Adjustments	Payout Cap	Service Quality Metric
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
	100% Electric Utility System Benefits	50% Resource Benefits	Eligible Spending Budget + Regulatory Costs	=(a)+(b)-(c)	Net benefits at which design incentive pool is achieved	Set by PUC	=(f)/(e)	Achievement levels at which the Payout Rate Adjustments in (i) will be applied—Set by PUC	Factor to adjust Design Payout Rate for if final program achievement fall within the ranges in (h)—Set by PUC	=1.25*(f)	Yes if (d) ≤ 0; No if (d) > 0
										Cap on sector payout regardless of achievement in sector	See Service Quality Table
Non-income Eligible Residential	\$27,216,053	\$7,585,477	\$37,535,343	-\$2,733,813	\$2,000,000	\$500,000	25%	a. Achievement < 25% b. 25% ≤ Achievement < 50% c. 50% ≤ Achievement < 75% d. 75% ≤ Achievement	a. 0.0 b. Achievement/100 + 0.1 c. Achievement/100 + 0.25 d. 0.0	\$625,000	Yes
Income Eligible Residential	\$9,443,416	\$3,557,351	\$22,229,666	-\$9,228,899	\$2,000,000	\$500,000	25%	*Spending > Planned Eligible Costs	*See Boundary Rules	\$625,000	Yes
Commercial & Industrial	\$113,241,617	-\$1,767,258	\$69,593,551	\$41,880,808	\$41,880,808	\$5,500,000	13%			\$6,875,000	No

Sector SQA = Maximum Service Adjustment(e) * Service Achievement Scaling Factor(g)

	Planned Eligible Benefits		Planned Eligible Costs	Design Service Achievement	Maximum Service Adjustment	Service Adjustment Thresholds	Service Achievement Scaling Factors	Achievement Cost Adjustment
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	100% Electric Utility System Benefits	50% Resource Benefits	Eligible Spending Budget + Regulatory Costs	=(a)+(b)	Maximum downward adjustment to earned incentive—Set by PUC	Adjusted Achievement levels at which the Service Adjustments in (e) will be applied; adjustment is calculated in (h)	Factor to scale program achievement that fall within the ranges in (f)	Actual-cost-based adjustment factor applied to achievement. Result is if the difference between achievement and cost variances are greater than 5%, the Actual Achievement will be adjusted for use in
Non-income Eligible Residential	\$27,216,053	\$7,585,477	\$37,535,343	\$34,801,530	\$1,251,250	a. Adjusted Achievement < 65% b. 65% ≤ Adjusted Achievement < 95% c. 95% ≤ Adjusted Achievement	a. 0 b. (95-Adjusted Achievement)/30 c. 0	Performance Variance = "Actual Benefits" / "Design Achievement" - "Spending" / "Planned Eligible Cost" If the absolute value (Performance Variance) ≤ 0.05, Then Adjusted Achievement = Actual Achievement Else Adjusted Achievement = Actual Achievement * (1+ Performance Variance)
Income Eligible Residential	\$9,443,416	\$3,557,351	\$22,229,666	\$13,000,767	\$715,000			
Commercial & Industrial	\$113,241,617	-\$1,767,258	\$69,593,551	N/A	N/A			

**Table E-9 - PROVISIONAL PLAN - Refined 11-5-2021
National Grid
Revolving Loan Fund Projections**

Large C&I Revolving Loan Fund		Small Business Revolving Loan Fund	
(1) Total Loan Fund Deposits Through 2021	\$ 18,547,780	(1) Total Loan Fund Deposits Through 2021	\$ 3,303,570
(2) Current Loan Fund Balance	\$ 7,208,593	(2) Current Loan Fund Balance	\$ 2,743,078
<i>Loans Paid Year-To-Date</i>	\$ 3,356,693	<i>Loans Paid Year-To-Date</i>	\$ 570,365
<i>Repayments Year-To-Date</i>	\$ 2,946,562	<i>Repayments Year-To-Date</i>	\$ 606,588
(3) Projected Additional Loans by Year End 2021	\$ 5,770,777	(3) Projected Additional Loans by Year End 2021	\$ 510,000
(4) Projected Additional Repayments by Year End 2021	\$ 2,453,636	(4) Projected Additional Repayments by Year End 2021	\$ 275,529
(5) Projected Year End Loan Fund Balance 2021	\$ 3,891,451	(5) Projected Year End Loan Fund Balance 2021	\$ 2,508,608
(6) 2022 Fund Injection	\$ 2,381,665	(6) 2022 Fund Injection	\$ -
(7) Projected Loan Fund Balance, January 2022	\$ 6,273,116	(7) Projected Loan Fund Balance, January 2022	\$ 2,508,608
(8) Projected Repayments throughout 2022	\$ 3,881,906	(8) Projected Repayments throughout 2022	\$ 245,746
(9) Estimated Loans in 2022	\$ 8,928,261	(9) Estimated Loans in 2022	\$ 1,500,000
(10) Projected Year End Loan Fund Balance 2022	\$ 1,226,760	(10) Projected Year End Loan Fund Balance 2022	\$ 1,254,353

Public Sector Revolving Loan Fund		Efficient Buildings Fund	
(1) Total Loan Fund Deposits Through 2021	\$ 54,065	(1) Energy Efficiency Funds allocated to EBF through 2021	\$ 27,087,113
(2) Current Loan Fund Balance	\$ 34,124	(2) Total EBF Loans Outstanding	\$ 55,075,045
<i>Funds returned to OER</i>	\$ -		
<i>Repayments Year-To-Date</i>	\$ 34,052		
(3) Projected Additional Loans by Year End	\$ -		
(4) Projected Additional Repayments by Year End	\$ 15,523		
(5) Projected Year End Loan Fund Balance 2021	\$ 49,647		
(6) 2022 Fund Injection	\$ -		
(7) Projected Loan Fund Balance, January 2022	\$ 49,647		
(8) Projected Repayments throughout 2022	\$ 2,945		
(9) Estimated Loans in 2022	\$ -		
(10) Projected Year End Loan Fund Balance 2022	\$ 52,592		

Notes

- 1 Funding injections since loan funds began. Net of any adjustments.
- 2 Current Loan Fund Balance is through July 2021; it includes all loans and repayments made by July 2021. Public Sector Revolving Loan Fund reduced by transfers to RI PEP Incentives. EBF reports in terms of loans outstanding.
- 3 Projected Loans from July to Year-End 2021 is estimated based on projects currently under construction that are anticipated to be paid out by year-end. It is difficult to project this amount accurately due to the fact that projects could be delayed by a month or two resulting in payment occurring in 2022 instead of 2021.
- 4 Projected Repayments from June to Year-End 2021 is estimated based on the monthly average amount of repayments.
- 5 Equal to (2) - (3) + (4).
- 6 Fund injection of \$2M for the Large C&I Revolving Loan Fund in included under the Finance Cost line in table E-2.
- 7 Equal to (5) + (6).
- 8 Assumption based on monthly average repayments in 2021 over 12 month period; repayments accumulate over time and may vary widely.
- 9 Amount projected to be lent to customers in 2022
- 10 Equal to (7) + (8) - (9).
- Efficient Buildings Fund - The 2022 Annual Plan only includes two values for EBF: 1) The Energy Efficiency Funds allocated to EBF through 2021. This assumes that the \$5M allocated to EBF for 2021 will be transferred to RIIB in 2021. 2) Total EBF Loans Outstanding as of July 2021. Additional information is not available because RIIB has informed the Company that, commencing with the 2022 Plan, it will not be providing forward looking projections to the Company regarding EBF. The Company is therefore unable to provide any future projections in the 2022 Annual Plan regarding EBF. The state's System Reliability and Least Cost procurement statute (amended in 2021) directs that \$5M shall be transferred to RIIB. However, RIIB has not informed the Company the statutory \$5M transfer to RIIB in 2022 will go to EBF.

Table E-10 - PROVISIONAL PLAN - Refined 11-5-2021
National Grid
Rhode Island Electric Energy Efficiency 2003 - 2022
\$(000)

Electric	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013 ⁽⁴⁾	2014	2015	2016	2017	2018	2019	2020 ⁽⁵⁾	2021 ⁽⁶⁾	2022 ⁽³⁾
Energy Efficiency Budget (\$Million) ⁽¹⁾	\$23.1	\$22.6	\$23.1	\$22.4	\$22.5	\$21.0	\$32.4	\$37.6	\$59.2	\$61.4	\$77.5	\$87.0	\$86.6	\$87.5	\$94.6	\$94.6	\$107.5	\$111.1	\$116.8	\$141.9
Spending Budget (\$Million) ⁽²⁾	\$16.3	\$15.8	\$17.6	\$16.5	\$16.4	\$14.7	\$23.5	\$28.8	\$45.3	\$55.3	\$64.8	\$80.6	\$77.3	\$77.6	\$88.5	\$88.7	\$98.1	\$101.1	\$104.8	\$120.8
Actual Expenditures (\$Million) ⁽³⁾	\$22.8	\$19.5	\$23.4	\$23.7	\$21.9	\$19.2	\$31.7	\$29.7	\$40.0	\$50.7	\$72.9	\$85.3	\$87.4	\$78.4	\$94.8	\$93.0	\$100.7	\$88.2		
Incentive Percentage ⁽¹⁰⁾	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	N/A	N/A
Target Incentive ⁽¹¹⁾	\$712,557	\$781,959	\$774,689	\$726,627	\$723,000	\$647,689	\$1,035,943	\$1,267,043	\$1,992,513	\$2,434,131	\$3,240,747	\$4,032,000	\$3,867,400	\$3,878,087	\$4,425,528	\$4,436,022	\$4,905,009	\$5,054,448	\$5,500,000	\$5,500,000
Earned Incentive	\$712,557	\$604,876	\$795,648	\$760,623	\$716,075	\$675,282	\$1,085,888	\$1,333,996	\$1,929,273	\$2,469,411	\$2,997,681	\$4,223,321	\$4,533,360	\$4,128,034	\$4,829,847	\$4,940,402	\$3,290,237	\$3,242,675		
Annual Summer Demand kW Savings Goal Achieved (%)				106%	106%	113%	142%	78%	71%	83%	114%	78%	112%	101%	103%	116%	98%	79%		
Annual MWh Energy Savings Goal Achieved (%)				111%	102%	111%	115%	107%	94%	93%	99%	105%	115%	107%	115%	110%	98%	88%		
Energy Efficiency Program Charge (\$/kWh) ⁽⁷⁾	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00320	\$0.00320	\$0.00526	\$0.00592	\$0.00876	\$0.00911	\$0.00953	\$0.01077	\$0.01124	\$0.00972	\$0.01121	\$0.01323	\$0.01113	\$0.01693
Annual Cost to 500 kWh/month Residential Customer w/o tax ⁽⁸⁾	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$19.20	\$19.20	\$31.56	\$35.52	\$52.56	\$54.66	\$57.18	\$64.62	\$67.44	\$58.32	\$67.26	\$79.38	\$66.78	\$101.58
Annual Cost to 500 kWh/month Residential Customer w/ tax ⁽⁹⁾	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50	\$20.00	\$20.00	\$32.88	\$37.00	\$54.75	\$56.94	\$59.56	\$67.31	\$70.25	\$60.75	\$70.06	\$82.69	\$69.56	\$105.81

Notes:

- (1) Energy Efficiency Budget includes total expenditures and commitments. Includes all demand side management program-related expenses, including rebates, administration and general expenses, evaluation, commitments for future years and Company incentive.
- (2) Prior to 2017, Spending Budget Eligible for Shareholder Incentive includes: Implementation, Administration, General, and Evaluation Expenses; excludes EERMC and OER Costs, Commitments, Copays, and Outside Finance Costs. Beginning in 2017, Outside Finance Costs were also included. Beginning in 2018 Pilot expenses were also excluded. Beginning in 2019 ConnectedSolutions expenses and assessments were also excluded.
- (3) Actual Expenditures is actual spend during calendar year. Includes expenditures and commitments. Includes all demand side management program-related expenses, including rebates, administration and general expenses, evaluation, commitments for future years and Company incentive.
- (4) In the Company's gas and electric rate cases in docket 4323, the PUC approved the uncollectibles gross-up in the electric EE Program Charge effective February 1, 2013, and a new rate applicable to the gross-up of the gas EE Program Charge, effective February 1, 2013.
- (5) 2021 values are planned.
- (6) 2022 values are proposed.
- (7) Beginning in 2012, the EE Program Charge includes the System Reliability Factor. It does not include the \$0.0003 renewables per RI General Laws §39-2-1.2 and Order #19608, which appears on customer bills.
- (8) Reflects the annual cost excluding Gross Earnings Tax.
- (9) Reflects the annual cost including Gross Earnings Tax.
- (10) Incentive percentage not applicable for 2021 due to new performance incentive mechanism developed for the 2021 Annual Plan. See Section 11 of the Main Text of the 2022 Annual Plan for additional details.
- (11) Target incentive is calculated in the same way as in 2021 in order to provide a more accurate estimate of the energy efficiency surcharge.

**Table G-1
National Grid
Gas DSM Funding Sources in 2022 by Sector
\$(000)**

	<u>Projections by Sector</u>			Total
	Income Eligible Residential	Non-Income Eligible Residential	Commercial & Industrial	
(1) Projected Budget (from G-2):	\$11,338.8	\$18,450.0	\$14,199.4	\$43,988.2
Sources of Other Funding:				
(2) Projected Year-End 2021 Fund Balance and Interest:	\$0.0	(\$7,849.6)	\$2,773.5	(\$5,076.1)
(3) Total Other Funding:	\$0.0	(\$7,849.6)	\$2,773.5	(\$5,076.1)
(4) Customer Funding Required:	\$11,338.8	\$26,299.6	\$11,426.0	\$49,064.3
(5) Forecasted Firm Dth Volume	1,685,277	18,876,534	19,843,867	40,405,678
(6) Forecasted Non Firm Dth Volume			2,278,545	2,278,545
(7) Less: Exempt DG Customers			(1,244,516)	(1,244,516)
(8) Forecasted Dth Volume:	1,685,277	18,876,534	20,877,896	41,439,707
Average Energy Efficiency Program Charge per Dth				
(9) excluding Uncollectible Recovery:				\$1.183
(10) Proposed Energy Efficiency Program Charge per Dth excluding Uncollectible Recovery	\$1.353	\$1.353	\$1.017	
(11) Currently Effective Uncollectible Rate	<u>1.91%</u>	<u>1.91%</u>	<u>1.91%</u>	
(12) Proposed Energy Efficiency Program Charge per Dth, including Uncollectible Recovery:	\$1.379	\$1.379	\$1.036	
(13) Currently Effective Energy Efficiency Program Charge per Dth	\$0.871	\$0.871	\$0.596	
(14) Adjustment to Reflect Fully Reconciling Funding Mechanism	\$0.508	\$0.508	\$0.440	

Notes

- (1) Projected Budget from G-2 includes OER and EERMC costs allocated to each sector based on forecasted volume.
- (2) Fund Balance projections include projected revenue and spend through year-end with Residential and C&I sector subsidies applied to Income Eligible as detailed in the 2022 EE Plan Table G-1. The Company proposes to refile this table with updated Fund Balance projections on November 17, 2021 as proposed in Section 10 of the Plan's Main Text.
- (10) The proposed EE program charges allow for the use of collections from one sector to fund energy efficiency services in other sectors that would otherwise not be supported with the proposed collection rates. The C&I charge includes collection of \$9.29 million of which \$5.13 million will be allocated to the low income sector and \$4.15 million to the residential sector.
- (11) Uncollectible rate approved in Docket No. 4770.

**Table G-2
National Grid
2022 Gas Energy Efficiency Program Budget (\$000)**

	Program Planning and Administration	Marketing	Cost of services and product rebates/incentives provided to customers	Sales, Technical Assistance and Training	Evaluation & Market Research	Performance Incentive	Grand Total
Non-Income Eligible Residential:							
ENERGY STAR [®] HVAC	\$136.1	\$256.3	\$3,959.6	\$295.7	\$141.8	\$0.0	\$4,789.4
EnergyWise	\$244.2	\$88.0	\$8,236.9	\$1,442.7	\$203.1	\$0.0	\$10,214.9
EnergyWise Multifamily	\$59.9	\$68.8	\$1,216.0	\$191.2	\$18.4	\$0.0	\$1,554.4
Home Energy Reports	\$9.7	\$0.0	\$0.0	\$429.1	\$3.0	\$0.0	\$441.8
Residential Pilots	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Residential New Construction	\$37.4	\$2.6	\$385.9	\$142.7	\$41.6	\$0.0	\$610.1
Comprehensive Marketing - Residential	\$0.1	\$84.2	\$0.0	\$0.0	\$0.0	\$0.0	\$84.3
Community Based Initiatives - Residential	\$13.9	\$51.6	\$39.7	\$0.0	\$0.0	\$0.0	\$105.3
Residential Performance Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Subtotal - Non-Income Eligible Residential	\$501.3	\$551.5	\$13,838.1	\$2,501.4	\$407.8	\$0.0	\$17,800.2
Income Eligible Residential:							
Single Family - Income Eligible Services	\$166.4	\$30.9	\$5,608.0	\$1,447.9	\$33.8	\$0.0	\$7,287.0
Income Eligible Multifamily	\$89.8	\$10.5	\$3,406.0	\$451.2	\$36.3	\$0.0	\$3,993.7
Income Eligible Performance Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Subtotal - Income Eligible Residential	\$256.2	\$41.4	\$9,014.0	\$1,899.1	\$70.1	\$0.0	\$11,280.8
Commercial & Industrial							
Large Commercial New Construction	\$135.7	\$188.4	\$2,396.5	\$1,281.7	\$268.2	\$0.0	\$4,270.6
Large Commercial Retrofit	\$245.9	\$324.4	\$3,151.1	\$1,862.0	\$185.6	\$0.0	\$5,769.0
Small Business Direct Install	\$7.2	\$38.6	\$294.8	\$55.1	\$5.7	\$0.0	\$401.3
Commercial & Industrial Multifamily	\$32.7	\$32.1	\$756.0	\$176.5	\$8.1	\$0.0	\$1,005.3
Commercial Pilots	\$0.0	\$7.5	\$178.3	\$30.0	\$0.0	\$0.0	\$215.8
Finance Costs	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Community Based Initiatives - C&I	\$4.6	\$17.2	\$13.2	\$0.0	\$0.0	\$0.0	\$35.1
Commercial Workforce Development	\$0.0	\$0.0	\$0.0	\$83.6	\$0.0	\$0.0	\$83.6
Commercial & Industrial Performance Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,700.0	\$1,700.0
Subtotal - Commercial & Industrial	\$426.1	\$608.2	\$6,789.9	\$3,488.9	\$467.6	\$1,700.0	\$13,480.7
Regulatory							
EERMC	\$570.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$570.6
OER	\$855.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$855.9
Subtotal - Regulatory	\$1,426.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,426.6
Grand Total	\$2,610.2	\$1,201.1	\$29,642.0	\$7,889.4	\$945.5	\$1,700.0	\$43,988.2

Notes:

- (1) OER and EERMC is equal to 3% of total collections from customers' Energy Efficiency Program Charge, reduced by 3%.
- (2) Demonstrations and Assessments are included in specific program level budgets listed above. More information on Demonstration and Assessments descriptions, budgets, and which program level budget they are included in can be found in Attachment 8.

Table G-3
National Grid
Derivation of the 2022 Spending & Implementation Budgets (\$000)

	Proposed 2022 Budget From G-2 (\$000)	Outside Finance and Stakeholder Oversight Costs (\$000)	Performance Incentive (\$000)	Eligible Sector Spending Budget for Performance Incentive on G-9 (\$000) ¹	Implementation Expenses for Cost-Effectiveness on G-5 (\$000) ²
Non-Income Eligible Residential					
ENERGY STAR® HVAC	\$4,789.4				\$4,789.4
EnergyWise	\$10,214.9				\$10,214.9
EnergyWise Multifamily	\$1,554.4				\$1,554.4
Home Energy Reports	\$441.8				\$441.8
Residential Pilots	\$0.0				\$0.0
Residential New Construction	\$610.1				\$610.1
Comprehensive Marketing - Residential	\$84.3				\$84.3
Community Based Initiatives - Residential	\$105.3				\$105.3
Residential Performance Incentive	\$0.0		\$0.0		\$0.0
Subtotal - Non-Income Eligible Residential	\$17,800.2	\$0.0	\$0.0	\$17,800.2	\$17,800.2
Income Eligible Residential					
Single Family - Income Eligible Services	\$7,287.0				\$7,287.0
Income Eligible Multifamily	\$3,993.7				\$3,993.7
Income Eligible Performance Incentive	\$0.0		\$0.0		\$0.0
Subtotal - Income Eligible Residential	\$11,280.8	\$0.0	\$0.0	\$11,280.8	\$11,280.8
Commercial & Industrial					
Large Commercial New Construction	\$4,270.6				\$4,270.6
Large Commercial Retrofit	\$5,769.0				\$5,769.0
Small Business Direct Install	\$401.3				\$401.3
Commercial & Industrial Multifamily	\$1,005.3				\$1,005.3
Commercial Pilots	\$215.8				\$215.8
Finance Costs	\$0.0	\$0.0			\$0.0
Community Based Initiatives - C&I	\$35.1				\$35.1
Commercial Workforce Development	\$83.6				\$83.6
Commercial & Industrial Performance Incentive	\$1,700.0		\$1,700.0		\$0.0
Subtotal - Commercial & Industrial	\$13,480.7	\$0.0	\$1,700.0	\$11,533.9	\$11,780.7
Regulatory					
EERMC	\$570.6	\$570.6			\$570.6
OER	\$855.9	\$855.9			\$855.9
Subtotal - Regulatory	\$1,426.6	\$1,426.6			\$1,426.6
Grand Total	\$43,988.2	\$1,426.6	\$1,700.0	\$40,614.8	\$42,288.2

Notes:

- (1) Eligible Sector Spending Budget for Performance Incentive = Budget from G-2 minus Regulatory Costs, Pilots, Assessments, and Performance Incentive.
- (2) Implementation Expenses = Budget from G-2 minus Performance Incentive.
- (3) Eligible Sector Spending Budget does not include assessments, see Attachment 8 for assessments budgets.

**Table G-4
National Grid
Proposed 2022 Budget Compared to Approved 2021 Budget (\$000)**

	Proposed Budget 2022 from G-2	2021 Approved Gas Budget	Difference
Non-Income Eligible Residential			
ENERGY STAR® HVAC	\$4,789.4	\$3,673.0	\$1,116.3
EnergyWise	\$10,214.9	\$8,117.6	\$2,097.3
EnergyWise Multifamily	\$1,554.4	\$1,491.6	\$62.8
Home Energy Reports	\$441.8	\$450.9	-\$9.0
Residential Pilots	\$0.0	\$0.0	\$0.0
Residential New Construction	\$610.1	\$674.8	-\$64.7
Comprehensive Marketing - Residential	\$84.3	\$64.8	\$19.5
Community Based Initiatives - Residential	\$105.3	\$75.8	\$29.4
Residential Performance Incentive	\$0.0	\$595.0	-\$595.0
Subtotal - Non-Income Eligible Residential	\$17,800.2	\$15,143.5	\$2,656.7
Income Eligible Residential			
Single Family - Income Eligible Services	\$7,287.0	\$5,952.3	\$1,334.7
Income Eligible Multifamily	\$3,993.7	\$3,009.4	\$984.3
Income Eligible Performance Incentive	\$0.0	\$425.0	-\$425.0
Subtotal - Income Eligible Residential	\$11,280.8	\$9,386.8	\$1,894.0
Commercial & Industrial			
Large Commercial New Construction	\$4,270.6	\$2,634.2	\$1,636.4
Large Commercial Retrofit	\$5,769.0	\$5,054.1	\$714.9
Small Business Direct Install	\$401.3	\$332.7	\$68.6
Commercial & Industrial Multifamily	\$1,005.3	\$953.2	\$52.1
Commercial Pilots	\$215.8	\$215.8	\$0.0
Finance Costs	\$0.0	\$0.0	\$0.0
Community Based Initiatives - C&I	\$35.1	\$24.8	\$10.2
Commercial Workforce Development	\$83.6	\$0.0	\$83.6
Commercial & Industrial Performance Incentive	\$1,700.0	\$680.0	\$1,020.0
Subtotal Commercial & Industrial	\$13,480.7	\$9,894.8	\$3,585.9
Regulatory			
EERMC	\$570.6	\$275.1	\$295.6
OER	\$855.9	\$275.1	\$580.9
Subtotal Regulatory	\$1,426.6	\$550.1	\$876.4
TOTAL BUDGET	\$43,988.2	\$34,975.2	\$9,013.0

Notes:

- (1) Program Implementation Budget excludes Commitments, Company Incentive; derived on Table G-3
- (2) Total Budget includes Implementation, Commitments; illustrated on Table G-3
- (3) Performance Incentive is allocated to the C&I Sector Consistent with the final PIM approved in Docket 5076.

**Table G-5 - Primary
National Grid
Calculation of 2022 Program Year Cost-Effectiveness
All Dollar Values in (\$000)**

	Rhode Island Benefit/ Cost	Total Benefit	Program Implementation Expenses	Customer Contribution	Performance Incentive	\$/Lifetime MMBtu
Non-Income Eligible Residential						
Energy Star® HVAC	1.12	\$11,669.1	\$4,789.4	\$5,628.0		\$15.66
EnergyWise	1.08	\$11,969.1	\$10,214.9	\$909.4		\$20.38
EnergyWise MultiFamily	3.41	\$6,471.8	\$1,554.4	\$344.0		\$12.37
Home Energy Reports	3.87	\$1,712.1	\$441.8	\$0.0		\$4.72
Residential New Construction	1.52	\$1,628.4	\$610.1	\$458.9		\$15.76
Comprehensive Marketing - Residential			\$84.3			
Community Based Initiatives - Residential			\$105.3			
Residential Pilots			\$0.0			
Non-Income Eligible Residential Subtotal	1.33	\$33,450.5	\$17,800.2	\$7,340.3	\$0.0	\$16.48
Income Eligible Residential						
Single Family - Income Eligible Services	2.03	\$14,777.4	\$7,287.0	\$0.0		\$29.26
Income Eligible Multifamily	5.51	\$22,005.0	\$3,993.7	\$0.0		\$8.95
Income Eligible Residential Subtotal	3.26	\$36,782.4	\$11,280.8	\$0.0	\$0.0	\$16.22
Large Commercial & Industrial						
Large Commercial New Construction	5.35	\$21,074.9	\$4,270.6	-\$330.5		\$4.57
Large Commercial Retrofit	4.96	\$46,110.1	\$5,769.0	\$3,525.3		\$5.46
Small Business Direct Install	4.17	\$2,029.4	\$401.3	\$85.9		\$4.41
Commercial & Industrial Multifamily	5.62	\$6,125.1	\$1,005.3	\$84.0		\$8.23
Commercial Pilots			\$215.8			
Community Based Initiatives - C&I			\$35.1			
Finance Costs			\$0.0			
Commercial Workforce Development			\$83.6			
Commercial & Industrial Subtotal	4.47	\$75,339.5	\$11,780.7	\$3,364.7	\$1,700.0	\$5.39
Regulatory						
EERMC			\$570.6			
OER			\$855.9			
Regulatory Subtotal			\$1,426.6			
Grand Total	2.66	\$145,572.4	\$42,288.2	\$10,705.0	\$1,700.0	\$10.54

Notes:

- (1) RI Test B/C Test = Total Benefits from Table G-6 excluding Economic Benefits / Program Implementation Expenses from Table G-3. Also includes effects of free-ridership and spillover.
- (2) For Implementation Expenses derivation, see Table G-3.

**Table G-5 - Secondary
National Grid
Calculation of 2022 Program Year Cost-Effectiveness with Economic Benefits Included
All Dollar Values in (\$000)**

	Rhode Island Benefit/ Cost	Total Benefit	Program Implementation Expenses	Customer Contribution	Performance Incentive	\$/Lifetime MMBtu
Non-Income Eligible Residential						
Energy Star® HVAC	1.50	\$15,644.3	\$4,789.4	\$5,628.0		\$15.66
EnergyWise	2.00	\$22,286.2	\$10,214.9	\$909.4		\$20.38
EnergyWise MultiFamily	4.74	\$9,005.4	\$1,554.4	\$344.0		\$12.37
Home Energy Reports	4.93	\$2,180.4	\$441.8	\$0.0		\$4.72
Residential New Construction	1.65	\$1,762.6	\$610.1	\$458.9		\$15.76
Comprehensive Marketing - Residential			\$84.3			
Community Based Initiatives - Residential			\$105.3			
Residential Pilots			\$0.0			
Non-Income Eligible Residential Subtotal	2.02	\$50,878.9	\$17,800.2	\$7,340.3	\$0.0	\$16.48
Income Eligible Residential						
Single Family - Income Eligible Services	3.02	\$21,991.6	\$7,287.0	\$0.0		\$29.26
Income Eligible Multifamily	7.06	\$28,195.3	\$3,993.7	\$0.0		\$8.95
Income Eligible Residential Subtotal	4.45	\$50,186.9	\$11,280.8	\$0.0	\$0.0	\$16.22
Large Commercial & Industrial						
Large Commercial New Construction	6.89	\$27,139.1	\$4,270.6	-\$330.5		\$4.57
Large Commercial Retrofit	6.53	\$60,705.7	\$5,769.0	\$3,525.3		\$5.46
Small Business Direct Install	5.61	\$2,731.7	\$401.3	\$85.9		\$4.41
Commercial & Industrial Multifamily	7.37	\$8,025.1	\$1,005.3	\$84.0		\$8.23
Commercial Pilots			\$215.8			
Community Based Initiatives - C&I			\$35.1			
Finance Costs			\$0.0			
Commercial Workforce Development			\$83.6			
Commercial & Industrial Subtotal	5.85	\$98,601.6	\$11,780.7	\$3,364.7	\$1,700.0	\$5.39
Regulatory						
EERMC			\$570.6			
OER			\$855.9			
Regulatory Subtotal			\$1,426.6			
Grand Total	3.65	\$199,667.4	\$42,288.2	\$10,705.0	\$1,700.0	\$10.54

Notes:

- (1) RI Test B/C Test = Total Benefits from Table G-6 including Economic Benefits / Program Implementation Expenses from Table G-3
Also includes effects of free-ridership and spillover.
- (2) For Implementation Expenses derivation, see Table G-3.

Table G-5A
National Grid
Calculation of 2022 Program Year Cost-Effectiveness with TRC Test
All Dollar Values in (\$000)

	TRC Benefit/ Cost	Total Benefit	Program Implementation Expenses	Customer Contribution	Performance Incentive	\$/Lifetime MMBtu
Non-Income Eligible Residential						
Energy Star® HVAC	0.67	\$6,957.8	\$4,789.4	\$5,628.0		\$15.7
EnergyWise	0.78	\$8,705.4	\$10,214.9	\$909.4		\$20.4
EnergyWise MultiFamily	2.86	\$5,433.3	\$1,554.4	\$344.0		\$12.4
Home Energy Reports	1.70	\$749.9	\$441.8	\$0.0		\$4.7
Residential New Construction	1.12	\$1,193.1	\$610.1	\$458.9		\$15.8
Comprehensive Marketing - Residential			\$84.3			
Community Based Initiatives - Residential			\$105.3			
Residential Pilots			\$0.0			
Residential Workforce Development			\$0.0			
Non-Income Eligible Residential Subtotal	0.92	\$23,039.5	\$17,800.2	\$7,340.3	\$0.0	\$16.5
Income Eligible Residential						
Single Family - Income Eligible Services	1.80	\$13,119.9	\$7,287.0	\$0.0		\$29.3
Income Eligible Multifamily	4.81	\$19,224.6	\$3,993.7	\$0.0		\$8.9
Income Eligible Workforce Development			\$0.0			\$0.0
Income Eligible Residential Subtotal	2.87	\$32,344.6	\$11,280.8	\$0.0	\$0.0	\$16.2
Large Commercial & Industrial						
Large Commercial New Construction	3.75	\$14,775.1	\$4,270.6	-\$330.5		\$4.6
Large Commercial Retrofit	3.43	\$31,833.8	\$5,769.0	\$3,525.3		\$5.5
Small Business Direct Install	2.49	\$1,215.0	\$401.3	\$85.9		\$4.4
Commercial & Industrial Multifamily	4.72	\$5,142.5	\$1,005.3	\$84.0		\$8.2
Commercial Pilots			\$215.8	\$0.0		
Community Based Initiatives - C&I			\$35.1	\$0.0		
Finance Costs			\$0.0	\$0.0		
Commercial Workforce Development			\$83.6	\$0.0		
Commercial & Industrial Subtotal	3.14	\$52,966.4	\$11,780.7	\$3,364.7	\$1,700.0	\$5.4
Regulatory						
EERMC			\$570.6			
OER			\$855.9			
Regulatory Subtotal			\$1,426.6			
Grand Total	1.98	\$108,350.5	\$42,288.2	\$10,705.0	\$1,700.0	\$10.5

Notes:

(1) TRC B/C Test = (Energy + Capacity + Resource Benefits) / (Program Implementation + Customer Contribution + Performance Incentive)

Also includes effects of free-ridership and spillover.

(2) For Implementation Expenses derivation, see Table G-3.

Table G-6
National Grid
Summary of 2022 Benefits by Program

	Benefits (\$000)																			
	Total	Total (Economic Excluded)	Natural Gas Benefits		Electric Capacity					Electric Energy				Non-Electric and Non-Gas			Societal			
			Natural Gas	Natural Gas DRIPE	Summer Generation	Capacity DRIPE	Trans	Dist	Reliability	Winter		Summer		Electric Energy DRIPE	Oil	Other Resource	Non Resource	Carbon	NOx	Economic
										Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak							
Non-Income Eligible Residential																				
EnergyWise	\$22,286	\$11,969	\$4,708	\$38	\$66	\$114	\$85	\$84	\$6	\$54	\$61	\$54	\$47	\$40	\$0	\$51	\$3,299	\$2,908	\$356	\$10,317
Energy Star@ HVAC	\$15,644	\$11,669	\$5,672	\$65	\$32	\$87	\$44	\$43	\$4	-\$8	-\$9	\$21	\$18	\$7	\$0	\$254	\$726	\$4,269	\$442	\$3,975
EnergyWise Multifamily	\$9,005	\$6,472	\$1,314	\$14	\$9	\$22	\$12	\$12	\$1	\$1	\$1	\$7	\$6	\$4	\$0	\$61	\$3,969	\$938	\$101	\$2,534
Home Energy Reports	\$2,180	\$1,712	\$725	\$25	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$898	\$64	\$468
Residential New Construction	\$1,763	\$1,628	\$589	\$6	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7	\$591	\$390	\$45	\$134
Non-Income Eligible Residential SUBTOTAL	\$50,879	\$33,450	\$13,008	\$148	\$108	\$223	\$141	\$140	\$11	\$47	\$53	\$82	\$71	\$50	\$0	\$374	\$8,584	\$9,403	\$1,008	\$17,428
Income Eligible Residential																				
Single Family - Income Eligible Services	\$21,992	\$14,777	\$2,189	\$21	\$28	\$56	\$37	\$37	\$3	\$33	\$39	\$22	\$19	\$27	\$0	\$0	\$10,608	\$1,492	\$166	\$7,214
Income Eligible Multifamily	\$28,195	\$22,005	\$3,884	\$36	\$4	\$13	\$6	\$6	\$1	\$1	\$0	\$3	\$3	\$2	\$0	\$91	\$15,176	\$2,487	\$294	\$6,190
Income Eligible Residential SUBTOTAL	\$50,187	\$36,782	\$6,073	\$57	\$32	\$69	\$43	\$42	\$3	\$34	\$39	\$25	\$22	\$29	\$0	\$91	\$25,784	\$3,979	\$459	\$13,404
Commercial & Industrial																				
Large Commercial New Construction	\$27,139	\$21,075	\$6,291	\$73	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$282	\$8,130	\$5,686	\$614	\$6,064
Large Commercial Retrofit	\$60,706	\$46,110	\$13,421	\$294	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$39	\$18,080	\$13,050	\$1,226	\$14,596
Small Business Direct Install	\$2,732	\$2,029	\$853	\$11	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$351	\$0	\$736	\$79	\$702
Commercial & Industrial Multifamily	\$8,025	\$6,125	\$1,078	\$14	\$5	\$14	\$6	\$6	\$1	\$1	\$0	\$3	\$3	\$2	\$0	\$26	\$3,984	\$889	\$94	\$1,900
Commercial & Industrial SUBTOTAL	\$98,602	\$75,339	\$21,643	\$392	\$5	\$14	\$6	\$6	\$1	\$1	\$0	\$3	\$3	\$2	\$0	\$698	\$30,193	\$20,361	\$2,012	\$23,262
Grand Total	\$199,667	\$145,572	\$40,724	\$596	\$145	\$307	\$190	\$188	\$15	\$81	\$92	\$110	\$95	\$82	\$0	\$1,162	\$64,561	\$33,742	\$3,479	\$54,095

**Table G-6A
National Grid
Summary of 2022 Impacts by Program**

	Gas Saved (MMBtu)	
	Annual	Lifetime
Non-Income Eligible Residential		
EnergyWise	23,689	545,760
Energy Star® HVAC	40,805	665,261
EnergyWise Multifamily	8,779	153,528
Home Energy Reports	93,548	93,548
Residential New Construction	3,749	67,836
Non-Income Eligible Residential SUBTOTAL	170,570	1,525,932
Income Eligible Residential		
Single Family - Income Eligible Services	12,454	249,087
Income Eligible Multifamily	21,990	446,417
Income Eligible Residential SUBTOTAL	34,444	695,504
Commercial & Industrial		
Large Commercial New Construction	57,532	862,628
Large Commercial Retrofit	199,327	1,702,637
Small Business Direct Install	7,358	110,369
Commercial & Industrial Multifamily	8,877	132,330
Commercial & Industrial SUBTOTAL	273,094	2,807,964
Grand Total	478,108	5,029,400

Notes:

1) Lifetime savings are equal to annual savings multiplied by the expected life of measures expected to be installed in each program.

**Table G-7
National Grid
Comparison of 2022 and 2021 Goals**

	Proposed 2022 Goal	Proposed 2022 Tracking		Approved 2021		Difference	
	Lifetime Energy Savings (MMBtu Natural Gas)	Annual Energy Savings (MMBtu Natural Gas)	Planned Unique Participants	Lifetime Energy Savings (MMBtu Natural Gas)	Annual Energy Savings (MMBtu Natural Gas)	Lifetime Energy Savings (MMBtu Natural Gas)	Annual Energy Savings (MMBtu Natural Gas)
Non-Income Eligible Residential							
EnergyWise	545,760	23,689	1,761	476,550	20,869	69,210	2,820
Energy Star® HVAC	665,261	40,805	3,062	667,485	38,345	-2,225	2,460
EnergyWise Multifamily	153,528	8,779	4,000	148,675	8,633	4,852	146
Home Energy Reports	93,548	93,548	152,324	93,548	93,548	0	0
Residential New Construction	67,836	3,749	289	85,272	4,445	-17,436	-696
Non-Income Eligible Residential SUBTOTAL	1,525,932	170,570	161,436	1,471,530	165,840	54,402	4,730
Income Eligible Residential							
Single Family - Income Eligible Services	249,087	12,454	1,098	201,104	10,055	47,983	2,399
Income Eligible Multifamily	446,417	21,990	3,150	315,545	14,399	130,872	7,591
Income Eligible Residential SUBTOTAL	695,504	34,444	4,248	516,649	24,454	178,855	9,990
Commercial & Industrial							
Large Commercial New Construction	862,628	57,532	94	437,398	27,631	425,230	29,902
Large Commercial Retrofit	1,702,637	199,327	62	1,455,776	187,283	246,861	12,044
Small Business Direct Install	110,369	7,358	170	48,861	4,886	61,508	2,472
Commercial & Industrial Multifamily	132,330	8,877	729	141,869	9,444	-9,540	-567
Commercial & Industrial SUBTOTAL	2,807,964	273,094	1,056	2,083,905	229,243	724,059	43,851
TOTAL	5,029,400	478,108	166,740	4,072,084	419,537	957,316	58,571

Notes:

- (1) Participants can participate in more than one program, for example Home Energy Reports and EnergyWise.
- (2) Planned 2022 participation takes into account net-to-gross and estimates unique participation by taking into account 2021 unique customer accounts to savings ratios. Therefore the number of planned measures may be more than the planned participants. For measure counts please view the widgets tables at the end of the Residential and C&I text sections. Table G-7 no longer includes a comparison to the previous year's participation. Due to the way unique participation is calculated it is not possible to compare year-over-year results.

**Table G-8A
National Grid
2022 Gas PIM Benefits, Allocations, and Categorization (\$000)**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	
	Natural Gas Benefits		Utility NEIs	Electric Capacity				Electric Energy				Non-Electric and Non-Gas			Societal					
	Natural Gas	Natural Gas DRIPE	Utility NEIs	Summer Generation	Capacity DRIPE	Trans	Dist	Reliability	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	Electric Energy DRIPE	Oil	Other Resource	Non Resource	Carbon	NOx	Economic	
Non-Income Eligible Residential																				
EnergyWise	\$4,708	\$38	\$0	\$66	\$114	\$85	\$84	\$6	\$54	\$61	\$54	\$47	\$40	\$0	\$51	\$3,299	\$2,908	\$356	\$10,317	
Energy Star® HVAC	\$5,672	\$65	\$0	\$32	\$87	\$44	\$43	\$4	-\$8	-\$9	\$21	\$18	\$7	\$0	\$254	\$726	\$4,269	\$442	\$3,975	
EnergyWise Multifamily	\$1,314	\$14	\$0	\$9	\$22	\$12	\$12	\$1	\$1	\$1	\$7	\$6	\$4	\$0	\$61	\$3,969	\$938	\$101	\$2,534	
Home Energy Reports	\$725	\$25	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$898	\$64	\$468	
Residential New Construction	\$589	\$6	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7	\$591	\$390	\$45	\$134	
Non-Income Eligible Residential SUBTOTAL	\$13,008	\$148	\$0	\$108	\$223	\$141	\$140	\$11	\$47	\$53	\$82	\$71	\$50	\$0	\$374	\$8,584	\$9,403	\$1,008	\$17,428	
Income Eligible Residential																				
Single Family - Income Eligible Services	\$2,189	\$21	\$109	\$28	\$56	\$37	\$37	\$3	\$33	\$39	\$22	\$19	\$27	\$0	\$0	\$10,499	\$1,492	\$166	\$7,214	
Income Eligible Multifamily	\$3,884	\$36	\$87	\$4	\$13	\$6	\$6	\$1	\$1	\$0	\$3	\$3	\$2	\$0	\$91	\$15,089	\$2,487	\$294	\$6,190	
Income Eligible Residential SUBTOTAL	\$6,073	\$57	\$196	\$32	\$69	\$43	\$42	\$3	\$34	\$39	\$25	\$22	\$29	\$0	\$91	\$25,589	\$3,979	\$459	\$13,404	
Commercial & Industrial																				
Large Commercial New Construction	\$6,291	\$73	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$282	\$8,130	\$5,686	\$614	\$6,064	
Large Commercial Retrofit	\$13,421	\$294	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$39	\$18,080	\$13,050	\$1,226	\$14,596	
Small Business Direct Install	\$853	\$11	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$351	\$0	\$736	\$79	\$702	
Commercial & Industrial Multifamily	\$1,078	\$14	\$0	\$5	\$14	\$6	\$6	\$1	\$1	\$0	\$3	\$3	\$2	\$0	\$26	\$3,984	\$889	\$94	\$1,900	
Commercial & Industrial SUBTOTAL	\$21,643	\$392	\$0	\$5	\$14	\$6	\$6	\$1	\$1	\$0	\$3	\$3	\$2	\$0	\$698	\$30,193	\$20,361	\$2,012	\$23,262	
Grand Total	\$40,724	\$596	\$196	\$145	\$307	\$190	\$188	\$15	\$81	\$92	\$110	\$95	\$82	\$0	\$1,162	\$64,366	\$33,742	\$3,479	\$54,095	
Included in PIM? (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	
Percent Application in PIM	100%	100%	100%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	0%	0%	0%	0%	
Category	Gas Utility System Benefits	Gas Utility System Benefits	Gas Utility System Benefits	Resource Benefits	Resource Benefits	Resource Benefits	Resource Benefits	Resource Benefits	NA	NA	NA	NA								

Notes
From 2022 Benefit-Cost Model, reflects benefits in Table G-6

**Table G-8B
National Grid
2022 Gas PIM Costs**

	(1)	(2)	(3)
	Costs (\$)		
	Eligible Spending Budget from Table G-3	Regulatory Costs	Total Costs for PIM Calculations
Non-Income Eligible Residential SUBTOTAL	\$17,800,180	\$475,525	\$18,275,705
Income Eligible Residential SUBTOTAL	\$11,280,790	\$475,525	\$11,756,314
Commercial & Industrial SUBTOTAL	\$11,533,859	\$475,525	\$12,009,384
Included in PIM? (Y/N)	Y	Y	Y

Notes

Source is Table G-2 and G-3. Regulatory costs allocated equally to each sector.

Table G-8C
National Grid
2022 Gas PIM and SQA

Sector PI = min(Payout Cap(i), [Actual Net Benefits* Design Payout Rate(g) * Payout Rate Adjustment(i)])

Sector	Planned Eligible Benefits		Planned Eligible Costs	Planned Eligible Net Benefits (4)	Design Performance Achievement	Design Performance Payout	Design Payout Rate	Design Payout Rate Thresholds	Payout Rate Adjustments	Payout Cap	Service Quality Metric
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
	100% Gas Utility System Benefits	50% Resource Benefits	Eligible Spending Budget + Regulatory Costs	=(a)+(b)-(c)	Net benefits at which design incentive pool is achieved	Set by PUC	=(f)/(e)	Achievement levels at which the Payout Rate Adjustments in (i) will be applied—Set by PUC	Factor to adjust Design Payout Rate for if final program achievement fall within the ranges in (h)—Set by PUC	=1.25*(f)	Yes if (d) ≤ 0; No if (d) >0
										Cap on sector payout regardless of achievement in sector	See Service Quality Table
Non-Income Eligible Residential	\$13,156,202	\$649,464	\$18,275,705	-\$4,470,039	\$2,000,000	\$500,000	25%	a. Achievement < 25% b. 25% ≤ Achievement < 50% c. 50% ≤ Achievement < 75% d. 75% ≤ Achievement • Spending > Planned Eligible Costs	a. 0 b. Achievement/100 + 0.1 c. Achievement/100 + 0.25 d. 0 • See Boundary Rules	\$625,000	Yes
Income Eligible Residential	\$6,325,268	\$215,339	\$11,756,314	-\$5,215,707	\$2,000,000	\$500,000	25%			\$625,000	Yes
Commercial & Industrial	\$22,034,325	\$369,590	\$12,009,384	\$10,394,531	\$10,394,531	\$1,700,000	16%			\$2,125,000	No

Sector SQA = Maximum Service Adjustment(e) * Service Achievement Scaling Factor(g)

	Planned Eligible Benefits		Planned Eligible Costs	Design Service Achievement	Maximum Service Adjustment	Service Adjustment Thresholds	Service Achievement Scaling Factors	Achievement Cost Adjustment
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	100% Gas Utility System Benefits	50% Resource Benefits	Eligible Spending Budget + Regulatory Costs	=(a)+(b)	Maximum downward adjustment to earned incentive	Adjusted Achievement levels at which the Service Adjustments in (e) will be applied; adjustment is calculated in (h)	Factor to scale program achievement that fall within the ranges in (f)	Actual-cost-based adjustment factor applied to achievement. Result is if the difference between achievement and cost variances are greater than 5%, the Actual Achievement will be adjusted for use in
Non-Income Eligible Residential	\$13,156,202	\$649,464	\$18,275,705	\$13,805,666	\$386,750	a. Adjusted Achievement < 65% b. 65% ≤ Adjusted Achievement < 95% c. 95% ≤ Adjusted Achievement	a. 0 b. (95-Adjusted Achievement)/30 c. 0	Performance Variance = "Actual Benefits" / "Design Achievement" - "Spending" / "Planned Eligible Cost" If the absolute value (Performance Variance) ≤ 0.05, Then Adjusted Achievement = Actual Achievement Else Adjusted Achievement = Actual Achievement * (1+ Performance Variance)
Income Eligible Residential	\$6,325,268	\$215,339	\$11,756,314	\$6,540,608	\$276,250			
Commercial & Industrial	\$22,034,325	\$369,590	\$12,009,384	N/A	N/A			

**Table G-9
National Grid
Revolving Loan Fund Projections**

Large C&I Revolving Loan Fund

(1)	Total Loan Fund Deposits Through 2021	\$ 3,590,440
(2)	Current Loan Fund Balance	\$ 2,398,955
(3)	Projected Loans by Year End 2021	\$ 587,000
(4)	Projected Repayments by Year End 2021	\$ 213,986
(5)	Projected Year End Loan Fund Balance 2021	\$ 2,025,941
(6)	2022 Fund Injection	\$ -
(7)	Projected Loan Fund Balance, January 2022	\$ 2,025,941
(8)	Projected Repayments throughout 2022	\$ 402,925
(9)	Estimated Loans in 2022	\$ 1,200,000
(10)	Projected Year End Loan Fund Balance 2022	\$ 1,228,866

Notes

- 1 Funding injections since loan funds began. Net of any adjustments.
- 2 Current Loan Fund Balance is through July 2021
- 3 Projected Loans by Year End 2021 is estimated based on current commitments
Projected Repayments by Year End 2021 is estimated based on projected loans
- 4 by year end and repayment schedules
- 5 Equal to (2) - (3) + (4)
- 6 Fund Injection, as budgeted on G-2
- 7 Equal to (5) + (6)
- 8 Assumption based on average repayments over 12 months; repayments accumulate over time and may vary widely.

Table G-10
National Grid
Rhode Island Gas Energy Efficiency 2007 - 2022
\$(000)

Gas	2007 ⁽⁴⁾	2008	2009	2010	2011 ⁽⁵⁾	2012	2013 ⁽⁶⁾	2014	2015	2016	2017	2018	2019	2020 ⁽⁷⁾	2021 ⁽⁸⁾	2022 ⁽⁸⁾
Energy Efficiency Budget (\$Million) ⁽¹⁾	-	\$7.3	\$7.6	\$4.8	\$7.3	\$13.7	\$19.5	\$23.5	\$24.5	\$27.7	\$29.7	\$28.1	\$31.6	\$34.3	\$35.0	\$44.0
Spending Budget (\$Million) ⁽²⁾	-	\$6.6	\$6.1	\$4.5	\$6.2	\$12.9	\$17.9	\$21.8	\$22.4	\$25.0	\$27.8	\$26.2	\$29.2	\$31.6	\$32.4	\$40.6
Actual Expenditures (\$Million) ⁽³⁾	-	\$7.4	\$6.3	\$5.5	\$4.9	\$13.3	\$19.6	\$21.5	\$21.5	\$24.6	\$29.1	\$28.8	\$29.5	\$24.6		
Incentive Percentage ⁽¹²⁾	-	4.4%	4.4%	4.4%	4.4%	4.4%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Target Incentive	-	\$288,734	\$266,980	\$199,743	\$274,460	\$570,382	\$898,285	\$1,089,700	\$1,119,800	\$1,251,654	\$1,387,550	\$1,309,076	\$1,460,570	\$1,578,601	\$1,700,000	\$1,700,000
Earned Incentive	-	\$288,734	\$262,121	\$231,310	\$239,863	\$586,036	\$968,229	\$1,362,108	\$1,387,079	\$1,496,869	\$1,633,531	\$1,541,255	\$1,580,119	\$347,732		
Annual MMBtu Energy Savings Goal Achieved (%)		109%	139%	127%	117%	99%	109%	124%	111%	106%	113%	120%	104%	71%		
System Benefits Charge (\$/therm) - all non-exempt customers ⁽¹¹⁾	\$0.0071	\$0.0107	\$0.0150	\$0.0150	\$0.0411	\$0.0384	\$0.0417	-	-	-	-	-	-	-	-	-
Residential System Benefits Charge (\$/therm)	-	-	-	-	-	-	-	\$0.0600	\$0.0781	\$0.0748	\$0.0888	\$0.0869	\$0.0715	\$0.1011	\$0.0871	\$0.1379
C&I System Benefits Charge (\$/therm)	-	-	-	-	-	-	-	\$0.0492	\$0.0637	\$0.0487	\$0.0726	\$0.0671	\$0.0420	\$0.0704	\$0.0596	\$0.1036
Annual Cost to 846 Therm/year Residential Customer w/o tax ⁽⁹⁾	\$6.04	\$9.05	\$12.69	\$12.69	\$18.28	\$32.49	\$35.28	\$50.76	\$66.07	\$63.28	\$75.12	\$73.52	\$60.49	\$85.53	\$73.69	\$116.66
Annual Cost to 846 Therm/year Residential Customer w/tax ⁽¹⁰⁾	\$6.23	\$9.33	\$13.08	\$13.08	\$18.85	\$33.49	\$36.37	\$52.33	\$68.11	\$65.24	\$77.44	\$75.79	\$62.36	\$88.18	\$75.97	\$120.27

Notes:

- (1) Energy Efficiency Budget includes total expenditures and commitments. Includes all demand side management program-related expenses, including rebates, administration and general expenses, evaluation, commitments for future years and Company incentive.
- (2) Prior to 2017, Spending Budget Eligible for Shareholder Incentive includes: Implementation, Administration, General, and Evaluation Expenses; excludes EERMC and OER Costs, Commitments, Copays, and Outside Finance Costs. Beginning in 2017, Outside Finance Costs were also included. Beginning in 2018 Pilot expenses were also excluded. Beginning in 2019 ConnectedSolutions expenses and assessment were also excluded.
- (3) Actual Expenditures is actual spend during calendar year. Includes expenditures and commitments. Includes all demand side management program-related expenses, including rebates, administration and general expenses, evaluation, commitments for future years and Company incentive.
- (4) Gas programs began during July 2007 and were not reported on separately that year since programs were still in development. The 2007 gas programs are included in 2008 reporting. Systems Benefit Charge shown for 2007 is the weighted average of \$0.063 per decatherm from January 1, 2007 - June 30, 2007 and \$0.107 per decatherm from July 1, 2007 through December 31, 2008.
- (5) On July 25, 2011 the Commission ordered that National Grid could increase the gas System Benefits Charge from \$0.15 to \$0.411 per decatherm for the period of August 1, 2011 through December 31, 2011. Annual cost represents 7 months usage (632 therms) at \$0.015 per therm and 5 months usage (214 therms) at \$0.0411 per therm.
- (6) In the Company's gas and electric rate cases in docket 4323, the PUC approved the uncollectibles gross-up in the electric EE Program Charge effective February 1, 2013, and a new rate applicable to the gross-up of the gas EE Program Charge, effective February 1, 2013.
- (7) 2021 values are planned.
- (8) 2022 values are proposed.
- (9) Reflects the annual cost excluding Gross Earnings Tax.
- (10) Reflects the annual cost including Gross Earnings Tax.
- (11) The Gas EE Program Charge was uniform for all customers until 2014, at which time the Company proposed and the PUC approved individual factors for the residential and C&I sectors.
- (12) Incentive percentage not applicable for 2022 due to new performance incentive mechanism developed for the 2022 Annual Plan. See Section 11 of the Main Text of the 2022 Annual Plan for additional details.

EERMC 1-2
Portfolio-Level Planning

Request:

Please provide Electric and Gas BCR models and updated Attachments 5 and 6 (Electric Tables and Gas Tables) reflecting program activity if 10% more budget were allocated to each program.

Response:

Please find attached to this response Attachment EERMC 1-2-1 (updated Attachment 5 tables) and Attachment EERMC 1-2-2 (updated Attachment 6 tables). Excel versions of the Electric and Gas BCR models are also being provided (Attachment EERMC 1-2-3, Electric BCR model, Attachment EERMC 1-2-4, Gas BCR model)

For the purposes of simplifying this analysis, the Company decided to apply proportional increases across all programs, except as noted below. Please see the assumptions made by the Company below:

1. A multiplier of 1.1 has been applied to all budgets.¹
2. A multiplier of 1.1 has been applied to all quantities/participants, with the exception of Home Energy Reports (HERs).²

¹ With the exception of the Rhode Island Infrastructure Bank Budget. This budget is based on statute and does not change.

² HERs is currently at programmatic capacity in terms of participants. The number of participants in the HERs program remains constant with the Provisional Plan.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5189
In Re: 2022 Annual Energy Efficiency Plan
Responses to EERMC's First Set of Data Requests
Issued on October 26, 2021

Attachments EERMC 1-2-3 & 1-2-4

Please refer to the Excel versions of Attachments EERMC 1-2-3 and EERMC 1-2-4.

**Table E-1 - EERMC 1-2-1
National Grid
Electric DSM Funding Sources in 2022 by Sector
\$(000)**

	Income Eligible Residential	Projections by Sector Non-Income Eligible Residential	Commercial & Industrial	Total
(1) Projected Budget (from E-2):	\$18,768.9	\$39,711.3	\$75,357.8	\$133,838.0
Sources of Other Funding:				
(2) Projected DSM Commitments at Year-End 2021:	\$0.0	\$0.0	\$0.0	\$0.0
(3) Projected Year-End 2021 Fund Balance and Interest:	\$0.0	(\$7,628.9)	\$12,579.2	\$4,950.3
(4) Projected FCM Net Revenue from ISO-NE:	\$482.0	\$5,723.2	\$8,130.1	\$14,335.3
(5) Total Other Funding:	\$482.0	(\$1,905.7)	\$20,709.3	\$19,285.5
(6) Customer Funding Required:	\$18,286.9	\$41,617.0	\$54,648.5	\$114,552.5
(7) Forecasted kWh Sales:	246,778,762	2,930,118,727	4,162,361,309	7,339,258,798
(8) Energy Efficiency Program charge per kWh, excluding uncollectible recovery:				\$0.01560
(9) Proposed SRP Opex Factor per kWh, excluding uncollectible recovery:				<u>\$0.00000</u>
(10) Total Proposed Energy Efficiency Charge per kWh, excluding uncollectible recovery:				\$0.01560
(11) Currently Effective Uncollectible Rate				1.30%
(12) Proposed Energy Efficiency Program Charge per kWh, including Uncollectible Recovery:				\$0.01580
(13) Currently Effective Energy Efficiency Program Charge per kwh				<u>\$0.01113</u>
(14) Proposed Adjustment to Reflect Fully Reconciling Funding Mechanism				\$0.00467

Notes:

- (1) Projected Budget from E-2 includes OER and EERMC costs allocated to each sector based on forecasted sales.
- (2) DSM Commitments are projects that are under construction with anticipated completion in 2022.
- (3) Fund balance projections include projected revenue and spend through year end with Income Eligible sector set to \$0 through projected subsidization from other sectors, minus commitments which are illustrated separately on line (2). The Company proposes to refile this table with updated Fund Balance projections on November 17, 2021 as proposed in Section 10 of the Plan's Main Text.
- (4) The total projection of FCM revenue is allocated by kWh sales to each sector. FCM Revenue includes an estimated \$250,230 penalty. See prefiled testimony for additional details.
- (5) Line (2) + Line (3) + Line (4)
- (6) Line (1) - Line (5)
- (7) Per Company Forecast
- (8) Line (6) ÷ Line (7), truncated to 5 decimal places
- (9) Truncated to 5 decimal places
- (11) Proposed SRP Opex Factor is \$0.00000.
- (10) Line (8) + Line (9)
- (11) Uncollectible rate approved in Docket No 4770.
- (12) Line (10) ÷ (1-Line (11)), truncated to 5 decimal places
- (13) Currently Effective EE Charge includes System Reliability Factor and uncollectible recovery.
- (14) Line (12) - Line (13)

**Table E-2 - EERMC 1-2-1
National Grid
2022 Electric Energy Efficiency Program Budget (\$000)**

	Program Planning & Administration	Marketing	Cost of services and product rebates/incentives provided to customers	Sales, Technical Assistance & Training	Evaluation & Market Research	Total Performance Incentive	Grand Total
Non-Income Eligible Residential							
Residential New Construction	\$100.9	\$26.0	\$881.0	\$554.6	\$87.9		\$1,650.3
ENERGY STAR® HVAC	\$110.4	\$307.6	\$4,108.1	\$534.5	\$288.5		\$5,349.1
EnergyWise	\$443.4	\$411.0	\$14,618.6	\$1,446.9	\$310.2		\$17,230.1
EnergyWise Multifamily	\$110.9	\$81.8	\$2,875.2	\$447.7	\$44.4		\$3,559.9
Residential Consumer Products	\$92.1	\$510.8	\$1,897.1	\$550.8	\$24.4		\$3,075.2
Home Energy Reports	\$61.5	\$14.4	\$0.0	\$2,806.6	\$22.9		\$2,905.4
Residential ConnectedSolutions	\$42.0	\$12.5	\$1,491.7	\$405.2	\$41.1		\$1,992.6
Energy Efficiency Education Programs	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		\$0.0
Residential Pilots	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		\$0.0
Community Based Initiatives - Residential	\$37.1	\$137.7	\$105.8	\$0.0	\$0.0		\$280.6
Comprehensive Marketing - Residential	\$1.4	\$271.4	\$0.0	\$0.0	\$0.0		\$272.7
Residential Performance Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Subtotal - Non-Income Eligible Residential	\$999.7	\$1,773.0	\$25,977.5	\$6,746.3	\$819.4	\$0.0	\$36,316.0
Income Eligible Residential							
Single Family - Income Eligible Services	\$370.7	\$148.5	\$11,831.6	\$2,162.6	\$79.7		\$14,593.2
Income Eligible Multifamily	\$125.5	\$15.6	\$3,326.4	\$378.5	\$43.7		\$3,889.8
Income Eligible Performance Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Subtotal - Income Eligible Residential	\$496.2	\$164.1	\$15,158.0	\$2,541.1	\$123.5	\$0.0	\$18,483.0
Commercial & Industrial							
Large Commercial New Construction	\$249.1	\$337.4	\$10,499.9	\$2,136.4	\$476.1		\$13,698.9
Large Commercial Retrofit	\$859.3	\$263.5	\$25,152.0	\$6,165.53	\$897.9		\$33,338.1
Small Business Direct Install	\$258.4	\$268.4	\$9,557.5	\$339.6	\$281.6		\$10,705.5
Commercial ConnectedSolutions	\$106.2	\$7.5	\$4,512.8	\$198.7	\$0.0		\$4,825.3
Commercial Pilots	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		\$0.0
Community Based Initiatives - C&I	\$12.3	\$45.8	\$35.3	\$0.0	\$0.0		\$93.5
Finance Costs	\$0.0	\$0.0	\$2,200.0	\$0.0	\$0.0		\$2,200.0
Commercial Workforce Development	\$0.0	\$0.0	\$0.0	\$173.3	\$0.0		\$173.3
Commercial & Industrial Performance Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$5,500.0	\$5,500.0
Subtotal - Commercial & Industrial	\$1,485.3	\$922.7	\$51,957.4	\$9,013.5	\$1,655.7	\$5,500.0	\$70,534.6
Regulatory							
OER	\$2,102.7	\$0.0	\$0.0	\$0.0	\$0.0		\$2,102.7
EERMC	\$1,401.8	\$0.0	\$0.0	\$0.0	\$0.0		\$1,401.8
Rhode Island Infrastructure Bank	\$0.0	\$0.0	\$5,000.0	\$0.0	\$0.0		\$5,000.0
Subtotal - Regulatory	\$3,504.5	\$0.0	\$5,000.0	\$0.0	\$0.0	\$0.0	\$8,504.5
Grand Total	\$6,485.8	\$2,859.8	\$98,093.0	\$18,300.9	\$2,598.6	\$5,500.0	\$133,838.0

Notes:

- (1) 2022 Large Commercial Retrofit Commitments (\$000):
- (2) For more information on Finance Costs, please refer to Attachment 2, Section 9.
- (3) OER and EERMC total 3.0% of customers' EE Program Charge collected on Table E-1, minus 3%.
- (4) Finance Costs are detailed in Table E-9. Finance Costs include an injection of \$2M into the Large C&I Revolving Loan Fund. Without this injection the Large C&I Revolving Loan Fund is projected to be negative by the end of 2022.
- (5) Demonstrations and Assessments budgets are included in specific program level budgets listed above. More information on Demonstration and Assessments descriptions, budgets, and which program level budget they are included in can be found in Attachment 8.
- (6) Based on the state's System Reliability and Least Cost procurement statute (amended in 2021), funds transferred to the Rhode Island Infrastructure Bank are now classified under Regulatory costs.

**Table E-3 - EERMC 1-2-1
National Grid
Derivation of the 2022 Spending and Implementation Budgets (\$000)**

	Proposed 2022 Budget From E-2	Commitments	Regulatory Costs	Performance Incentive	Eligible Sector Spending Budget for Performance Incentive on E-8B	Implementation Expenses for Cost- Effectiveness on E-5
Non-Income Eligible Residential						
Residential New Construction	\$1,650.3					\$1,650.3
ENERGY STAR® HVAC	\$5,349.1					\$5,349.1
EnergyWise	\$17,230.1					\$17,230.1
EnergyWise Multifamily	\$3,559.9					\$3,559.9
Residential Consumer Products	\$3,075.2					\$3,075.2
Home Energy Reports	\$2,905.4					\$2,905.4
Residential ConnectedSolutions	\$1,992.6					\$1,992.6
Energy Efficiency Education Programs	\$0.0					\$0.0
Residential Pilots	\$0.0					\$0.0
Community Based Initiatives - Residential	\$280.6					\$280.6
Comprehensive Marketing - Residential	\$272.7					\$272.7
Residential Performance Incentive	\$0.0			\$0.0		\$0.0
Subtotal - Non-Income Eligible Residential	\$36,316.0	\$0.0	\$0.0	\$0.0	\$34,298.5	\$36,316.0
Income Eligible Residential						
Single Family - Income Eligible Services	\$14,593.2					\$14,593.2
Income Eligible Multifamily	\$3,889.8					\$3,889.8
Income Eligible Performance Incentive	\$0.0			\$0.0		\$0.0
Subtotal - Income Eligible Residential	\$18,483.0	\$0.0	\$0.0	\$0.0	\$18,483.0	\$18,483.0
Commercial & Industrial						
Large Commercial New Construction	\$13,698.9	\$0.0				\$13,698.9
Large Commercial Retrofit	\$33,338.1	\$0.0				\$33,338.1
Small Business Direct Install	\$10,705.5	\$0.0				\$10,705.5
Commercial ConnectedSolutions	\$4,825.3					\$4,825.3
Commercial Pilots	\$0.0					\$0.0
Community Based Initiatives - C&I	\$93.5					\$93.5
Finance Costs	\$2,200.0					\$2,200.0
Commercial Workforce Development	\$173.3					\$173.3
Commercial & Industrial Performance Incentive	\$5,500.0			\$5,500.0		\$0.0
Subtotal - Commercial & Industrial	\$70,534.6	\$0.0	\$0.0	\$5,500.0	\$60,178.2	\$65,034.6
Regulatory						
OER	\$2,102.7		\$2,102.7			\$2,102.7
EERMC	\$1,401.8		\$1,401.8			\$1,401.8
Rhode Island Infrastructure Bank	\$5,000.0		\$5,000.0			\$5,000.0
Subtotal - Regulatory	\$8,504.5	\$0.0	\$8,504.5	\$0.0	\$0.0	\$8,504.5
Grand Total	\$133,838.0	\$0.0	\$8,504.5	\$5,500.0	\$112,959.7	\$128,338.0

Notes:

- (1) Eligible Sector Spending Budget = Total Budget from E-2 minus commitments, regulatory costs, pilots, assessments, Residential ConnectedSolutions, Commercial ConnectedSolutions, Performance Incentive
- (2) Eligible Sector Spending Budget does not include assessments, see Attachment 8 for assessments budgets.
- (3) Implementation Expenses = Total Budget from E-2 minus commitments and Performance Incentive.

**Table E-4 - EERMC 1-2-1
National Grid
Proposed 2022 Budget Compared to Approved 2021 Budget (\$000)**

	Proposed Implementation Budget 2022	Approved Implementation Budget 2021	Difference
Non-Income Eligible Residential			
Residential New Construction	\$1,650.3	\$1,611.3	\$39.0
ENERGY STAR® HVAC	\$5,349.1	\$3,487.8	\$1,861.3
EnergyWise	\$17,230.1	\$15,692.2	\$1,537.9
EnergyWise Multifamily	\$3,559.9	\$2,804.3	\$755.7
ENERGY STAR® Lighting	\$0.0	\$5,274.8	-\$5,274.8
Residential Consumer Products	\$3,075.2	\$2,681.2	\$393.9
Home Energy Reports	\$2,905.4	\$2,641.7	\$263.7
Residential ConnectedSolutions	\$1,992.6	\$1,920.5	\$72.1
Energy Efficiency Education Programs	\$0.0	\$40.0	-\$40.0
Residential Pilots	\$0.0	\$0.0	\$0.0
Community Based Initiatives - Residential	\$280.6	\$226.2	\$54.4
Comprehensive Marketing - Residential	\$272.7	\$332.7	-\$60.0
Subtotal - Non-Income Eligible Residential	\$36,316.0	\$36,712.7	-\$396.7
Income Eligible Residential			
Single Family - Income Eligible Services	\$14,593.2	\$12,846.1	\$1,747.1
Income Eligible Multifamily	\$3,889.8	\$3,549.0	\$340.8
Subtotal - Income Eligible Residential	\$18,483.0	\$16,395.1	\$2,087.9
Commercial & Industrial			
Large Commercial New Construction	\$13,698.9	\$8,188.2	\$5,510.8
Large Commercial Retrofit	\$33,338.1	\$31,565.2	\$1,772.9
Small Business Direct Install	\$10,705.5	\$8,883.6	\$1,822.0
Commercial ConnectedSolutions	\$4,825.3	\$2,990.1	\$1,835.2
Community Based Initiatives - C&I	\$93.5	\$74.5	\$18.9
Commercial Pilots	\$0.0	\$0.0	\$0.0
Finance Costs	\$2,200.0	\$5,000.0	-\$2,800.0
Commercial Workforce Development	\$173.3	\$0.0	\$173.3
Subtotal Commercial & Industrial	\$65,034.6	\$56,701.6	\$8,333.0
Regulatory			
EERMC	\$1,401.8	\$738.5	\$663.3
OER	\$2,102.7	\$738.5	\$1,364.2
Rhode Island Infrastructure Bank	\$5,000.0	\$0.0	\$5,000.0
Subtotal Regulatory	\$8,504.5	\$1,477.0	\$7,027.5
TOTAL IMPLEMENTATION BUDGET	\$128,338.0	\$111,286.3	\$17,051.7
OTHER EXPENSE ITEMS			
Commitments	\$0.0	\$0.0	\$0.0
Company Incentive	\$5,500.0	\$5,500.0	\$0.0
Subtotal - Other Expense Items	\$5,500.0	\$5,500.0	\$0.0
TOTAL BUDGET	\$133,838.0	\$116,786.3	\$17,051.7

Notes:

- (1) Program Implementation Budget excludes Commitments, Company Incentive; derived on Table E-3
- (2) Total Budget includes Implementation, Commitments; illustrated on Table E-3
- (3) The Energy Star® Lighting program year-over-year decrease is due to the phase out of the program in 2022.
- (4) The increased budget for the Large Commercial and Industrial New Construction program can be attributed to a roughly \$3,800,000 increase in incentives for HVAC, controls, industrial process, and other non-lighting measures, plus associated program administration costs to implement a more complex measure mix.
- (5) The Large Commercial Retrofit program decreased primarily due to roughly a \$2,600,000 reduction in lighting incentives due to lower anticipated volume as the market becomes increasingly saturated. The CHP budget also decreased approximately \$500,000 because there was a CHP retrofit in the 2021 plan. This has been partially offset by increased non-lighting incentive budgets and associated program administration costs to implement a more complex measure mix.
- (6) The increase in the 2022 Commercial and Industrial ConnectedSolutions program budget can be attributed to the higher participation in the Daily Dispatch demand response offering. In total, the customer incentive payments represent approximately 98% of the cost associated with this measure.
- (7) The Finance Cost decline is driven by a reallocation of \$5M in RIIB from this line to the RIIB line under regulatory due to the updated the Least Cost Procurement statute (amended in 2021).
- (8) The increase in allocation of funds to the OER is made consistent with the state's System Reliability and Least Cost procurement statute (amended in 2021), which provides that the Commission shall allocate an amount not to exceed three percent (3.0%) from authorized demand-side management gas and electric funds authorized.
- (9) The Rhode Island Infrastructure Bank addition is driven by a reallocation of \$5M from the Finance Cost Line to the Rhode Island Infrastructure Bank line under the regulatory sector to comply with the Least Cost Procurement statute (amended in 2021).

**Table E-5 - Primary - EERMC 1-2-1
National Grid
Calculation of 2022 Program Year Cost-Effectiveness
All Dollar Values in (\$000)**

	RI Test Benefit/ Cost ¹	Total Benefit	Program Implementation Expenses ²	Customer Contribution	Performance Incentive	¢/Lifetime kWh
Non-Income Eligible Residential						
Residential New Construction	2.06	\$4,625.6	\$1,650.3	\$599.3		13.9
ENERGY STAR® HVAC	2.18	\$16,104.3	\$5,349.1	\$2,035.0		8.6
EnergyWise	1.03	\$18,298.5	\$17,230.1	\$584.8		119.8
EnergyWise Multifamily	1.64	\$6,787.6	\$3,559.9	\$585.2		18.3
Home Energy Reports	1.86	\$5,401.4	\$2,905.4	\$0.0		10.8
Residential Consumer Products	2.21	\$10,686.4	\$3,075.2	\$1,767.4		9.3
Residential ConnectedSolutions	1.59	\$3,174.6	\$1,992.6	\$0.0		N/A
Energy Efficiency Education Programs			\$0.0			
Residential Pilots			\$0.0			
Community Based Initiatives - Residential			\$280.6			
Comprehensive Marketing - Residential			\$272.7			
Non-Income Eligible Residential SUBTOTAL	1.55	\$65,078.3	\$36,316.0	\$5,571.7	\$0.0	19.2
Income Eligible Residential						
Single Family - Income Eligible Services	1.94	\$28,347.8	\$14,593.2	\$0.0		34.4
Income Eligible Multifamily	2.38	\$9,246.1	\$3,889.8	\$0.0		14.4
Income Eligible Residential SUBTOTAL	2.03	\$37,593.9	\$18,483.0	\$0.0	\$0.0	26.6
Commercial & Industrial						
Large Commercial New Construction	2.90	\$43,036.1	\$13,698.9	\$1,123.6		6.1
Large Commercial Retrofit	1.94	\$87,621.2	\$33,338.1	\$11,816.2		12.0
Small Business Direct Install	1.12	\$14,365.1	\$10,705.5	\$2,171.5		17.5
Commercial ConnectedSolutions	2.42	\$11,683.3	\$4,825.3	\$0.0		N/A
Commercial Pilots			\$0.0			
Community Based Initiatives - C&I			\$93.5			
Finance Costs			\$2,200.0			
Commercial Workforce Development			\$173.3			
C&I SUBTOTAL	1.83	\$156,705.6	\$65,034.6	\$15,111.4	\$5,500.0	11.6
Regulatory						
OER			\$2,102.7			
EERMC			\$1,401.8			
Rhode Island Infrastructure Bank			\$5,000.0			
Regulatory SUBTOTAL			\$8,504.5			
TOTAL	1.68	\$259,377.9	\$128,338.0	\$20,683.1	\$5,500.0	15.2

Notes:

- (1) RI Test B/C Test = Total Benefits from Table E-6A / Program Implementation Expenses from Table E-3
Also includes effects of free-ridership and spillover.
- (2) For Implementation Expenses derivation, see Table E-3.

**Table E-5 - Secondary - EERMC 1-2-1
National Grid
Calculation of 2022 Program Year Cost-Effectiveness with Economic Benefits Included
All Dollar Values in (\$000)**

	RI Test Benefit/ Cost ¹	Total Benefit	Program Implementation Expenses ²	Customer Contribution	Performance Incentive	¢/Lifetime kWh
Non-Income Eligible Residential						
Residential New Construction	3.08	\$6,936.0	\$1,650.3	\$599.3		13.9
ENERGY STAR® HVAC	3.21	\$23,700.0	\$5,349.1	\$2,035.0		8.6
EnergyWise	1.93	\$34,322.5	\$17,230.1	\$584.8		119.8
EnergyWise Multifamily	2.79	\$11,557.9	\$3,559.9	\$585.2		18.3
Home Energy Reports	2.86	\$8,306.9	\$2,905.4	\$0.0		10.8
Residential Consumer Products	3.17	\$15,360.6	\$3,075.2	\$1,767.4		9.3
Residential ConnectedSolutions	2.42	\$4,828.4	\$1,992.6	\$0.0		N/A
Energy Efficiency Education Programs			\$0.0			
Residential Pilots			\$0.0			
Community Based Initiatives - Residential			\$280.6			
Comprehensive Marketing - Residential			\$272.7			
Non-Income Eligible Residential SUBTOTAL	2.51	\$105,012.3	\$36,316.0	\$5,571.7	\$0.0	19.2
Income Eligible Residential						
Single Family - Income Eligible Services	2.80	\$40,898.0	\$14,593.2	\$0.0		34.4
Income Eligible Multifamily	3.57	\$13,874.9	\$3,889.8	\$0.0		14.4
Income Eligible Residential SUBTOTAL	2.96	\$54,772.9	\$18,483.0	\$0.0	\$0.0	26.6
Commercial & Industrial						
Large Commercial New Construction	5.78	\$85,639.7	\$13,698.9	\$1,123.6		6.1
Large Commercial Retrofit	6.22	\$280,982.3	\$33,338.1	\$11,816.2		12.0
Small Business Direct Install	2.75	\$35,455.0	\$10,705.5	\$2,171.5		17.5
Commercial ConnectedSolutions	4.61	\$22,250.7	\$4,825.3	\$0.0		N/A
Commercial Pilots			\$0.0			
Community Based Initiatives - C&I			\$93.5			
Finance Costs			\$2,200.0			
Commercial Workforce Development			\$173.3			
C&I SUBTOTAL	4.95	\$424,327.7	\$65,034.6	\$15,111.4	\$5,500.0	11.6
Regulatory						
OER			\$2,102.7			
EERMC			\$1,401.8			
Rhode Island Infrastructure Bank			\$5,000.0			
Regulatory SUBTOTAL			\$8,504.5			
TOTAL	3.78	\$584,112.9	\$128,338.0	\$20,683.1	\$5,500.0	15.2

Notes:

- (1) RI Test B/C Test = Total Benefits from Table E-6A including Economic Benefits / Program Implementation Expenses from Table E-3
Also includes effects of free-ridership and spillover.
- (2) For Implementation Expenses derivation, see Table E-3.

Table E-5A - EERMC 1-2-1
National Grid
Calculation of 2022 Program Year Cost-Effectiveness with TRC Test
All Dollar Values in (\$000)

	TRC Benefit/ Cost ¹	Total Benefit	Program Implementation Expenses ²	Customer Contribution	Performance Incentive	¢/Lifetime kWh
Non-Income Eligible Residential						
Residential New Construction	1.64	\$3,690.1	\$1,650.3	\$599.3		13.9
ENERGY STAR® HVAC	1.60	\$11,819.4	\$5,349.1	\$2,035.0		8.6
EnergyWise	0.78	\$13,826.8	\$17,230.1	\$584.8		119.8
EnergyWise Multifamily	1.36	\$5,641.9	\$3,559.9	\$585.2		18.3
Home Energy Reports	1.25	\$3,642.0	\$2,905.4	\$0.0		10.8
Residential Consumer Products	1.59	\$7,716.1	\$3,075.2	\$1,767.4		9.3
Residential ConnectedSolutions	1.59	\$3,170.7	\$1,992.6	\$0.0		N/A
Energy Efficiency Education Programs			\$0.0			0.0
Residential Pilots			\$0.0			0.0
Community Based Initiatives - Residential			\$280.6			0.0
Comprehensive Marketing - Residential			\$272.7			0.0
Non-Income Eligible Residential SUBTOTAL	1.18	\$49,507.1	\$36,316.0	\$5,571.7	\$0.0	19.2
Income Eligible Residential						
Single Family - Income Eligible Services	1.66	\$24,249.8	\$14,593.2	\$0.0		34.4
Income Eligible Multifamily	2.04	\$7,936.6	\$3,889.8	\$0.0		14.4
Income Eligible Residential SUBTOTAL	1.74	\$32,186.4	\$18,483.0	\$0.0	\$0.0	26.6
Commercial & Industrial						
Large Commercial New Construction	2.23	\$32,993.0	\$13,698.9	\$1,123.6		6.1
Large Commercial Retrofit	1.53	\$69,285.4	\$33,338.1	\$11,816.2		12.0
Small Business Direct Install	0.83	\$10,660.5	\$10,705.5	\$2,171.5		17.5
Commercial ConnectedSolutions	2.42	\$11,683.3	\$4,825.3			
Commercial Pilots			\$0.0			
Community Based Initiatives - C&I			\$93.5			
Finance Costs			\$2,200.0			
Commercial Workforce Development			\$173.3			
C&I SUBTOTAL	1.46	\$124,622.1	\$65,034.6	\$15,111.4	\$5,500.0	11.6
Regulatory						
OER			\$2,102.7			
EERMC			\$1,401.8			
Rhode Island Infrastructure Bank			\$5,000.0			
Regulatory SUBTOTAL			\$8,504.5			
TOTAL	1.34	\$206,315.6	\$128,338.0	\$20,683.1	\$5,500.0	15.2

(1) TRC B/C Test omits societal benefits that are monetized in the RI Test, including non-embedded emissions (CO2 and Nox), and economic benefits Also includes effects of free-ridership and spillover.
(2) For Implementation Expenses derivation, see Table E-3.

**Table E-6 - EERMC 1-2-1
National Grid
Summary of 2022 Benefits by Program (Energy Efficiency Measures)**

	Benefits (000's)																		
	Total	Total (Economic Excluded)	Capacity					Energy				Non Electric				Societal			
			Summer Generation	Capacity DRIPE	Trans	Dist	Reliability	Winter		Summer		Electric Energy DRIPE	Natural Gas	Oil	Other Resource	Non Resource	Carbon	NOx	Economic
								Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak								
Non-Income Eligible Residential																			
Residential New Construction	\$6,936	\$4,626	\$53	\$47	\$103	\$102	\$1	\$400	\$524	\$157	\$120	\$308	\$0	\$364	\$1,439	\$73	\$905	\$30	\$2,310
ENERGY STAR® HVAC	\$23,700	\$16,104	\$200	\$175	\$393	\$389	\$2	\$2,640	\$3,288	\$243	\$204	\$2,018	\$60	\$1,803	-\$18	\$422	\$4,141	\$144	\$7,596
EnergyWise	\$34,322	\$18,299	\$162	\$178	\$320	\$317	\$2	\$296	\$302	\$196	\$172	\$347	\$0	\$9,884	\$256	\$1,394	\$3,967	\$504	\$16,024
EnergyWise Multifamily	\$11,558	\$6,788	\$103	\$87	\$200	\$198	\$1	\$650	\$809	\$116	\$97	\$506	\$0	\$695	\$53	\$2,125	\$1,099	\$47	\$4,770
Home Energy Reports	\$8,307	\$5,401	\$207	\$450	\$365	\$362	\$6	\$646	\$531	\$251	\$183	\$640	\$0	\$0	\$0	\$0	\$1,736	\$23	\$2,905
Residential Consumer Products	\$15,361	\$10,686	\$368	\$792	\$827	\$819	\$10	\$993	\$1,080	\$533	\$536	\$1,646	\$16	\$46	\$45	\$5	\$2,929	\$41	\$4,674
Non-Income Eligible Residential SUBTOTAL	\$100,184	\$61,904	\$1,095	\$1,728	\$2,208	\$2,188	\$22	\$5,623	\$6,535	\$1,497	\$1,312	\$5,466	\$77	\$12,791	\$1,775	\$4,019	\$14,778	\$789	\$38,280
Income Eligible Residential																			
Single Family - Income Eligible Services	\$40,898	\$28,348	\$303	\$278	\$595	\$590	\$4	\$963	\$1,065	\$451	\$465	\$882	\$85	\$5,809	\$426	\$12,333	\$3,773	\$325	\$12,550
Income Eligible Multifamily	\$13,875	\$9,246	\$25	\$20	\$47	\$47	\$0	\$876	\$1,120	\$33	\$28	\$615	\$0	\$706	\$58	\$4,361	\$1,260	\$49	\$4,629
Income Eligible Residential SUBTOTAL	\$54,773	\$37,594	\$327	\$299	\$643	\$637	\$4	\$1,839	\$2,185	\$484	\$493	\$1,497	\$85	\$6,516	\$484	\$16,694	\$5,033	\$374	\$17,179
Commercial & Industrial																			
Large Commercial New Construction	\$85,640	\$43,036	\$1,687	\$1,441	\$3,299	\$3,269	\$18	\$6,257	\$3,677	\$3,981	\$2,416	\$5,318	-\$283	\$0	\$5	\$1,906	\$9,914	\$129	\$42,604
Large Commercial Retrofit	\$280,982	\$87,621	\$3,330	\$6,589	\$7,394	\$7,326	\$83	\$7,911	\$5,695	\$5,434	\$3,408	\$11,880	-\$2,191	\$0	\$40	\$12,387	\$18,249	\$87	\$193,361
Small Business Direct Install	\$35,455	\$14,365	\$287	\$679	\$657	\$651	\$9	\$1,578	\$923	\$1,168	\$611	\$2,374	-\$444	\$0	\$0	\$2,168	\$3,687	\$17	\$21,090
C&I SUBTOTAL	\$402,077	\$145,022	\$5,305	\$8,709	\$11,351	\$11,246	\$109	\$15,746	\$10,295	\$10,583	\$6,435	\$19,572	-\$2,918	\$0	\$45	\$16,461	\$31,851	\$233	\$257,055
TOTAL	\$557,034	\$244,520	\$6,727	\$10,736	\$14,202	\$14,071	\$135	\$23,208	\$19,014	\$12,564	\$8,240	\$26,535	-\$2,756	\$19,307	\$2,305	\$37,174	\$51,662	\$1,397	\$312,514

**Table E-6A - EERMC 1-2-1
National Grid
Summary of 2022 Impacts by Program (Energy Efficiency Measures)**

	Load Reduction in kW		Electric Energy Savings				Gas Saved		Oil Saved		Propane Saved		Total Net Savings (Electric, Gas, Oil, Propane)	
			MWh		MMBtu		MMBtu		MMBtu		MMBtu		MMBtu	
	Summer	Winter	Annual	Lifetime	Annual	Lifetime	Annual	Lifetime	Annual	Lifetime	Annual	Lifetime	Annual	Lifetime
Non-Income Eligible Residential														
Residential New Construction	81	285	929	16,156	3,169	55,126	-	-	582	14,560	1,457	36,415	5,208	106,101
ENERGY STAR® HVAC	264	1,170	5,085	85,555	17,351	291,914	435	6,626	4,909	74,145	(36)	(466)	22,659	372,218
EnergyWise	467	557	3,070	14,874	10,476	50,750	-	-	20,923	401,060	253	4,023	31,652	455,834
EnergyWise Multifamily	157	382	1,558	22,707	5,314	77,475	-	-	1,151	27,878	-	-	6,465	105,353
Home Energy Reports	3,692	5,706	26,852	26,852	91,619	91,619	-	-	-	-	-	-	91,619	91,619
Residential Consumer Products	1,230	908	7,574	52,314	25,842	178,496	92	1,839	94	1,853	28	414	26,057	182,602
Non-Income Eligible Residential SUBTOTAL	5,891	9,008	45,068	218,458	153,773	745,380	527	8,465	27,659	519,496	1,702	40,386	183,661	1,313,727
Income Eligible Residential														
Single Family - Income Eligible Services	528	552	3,648	42,410	12,448	144,701	1,056	12,748	12,294	235,800	71	1,255	25,868	394,504
Income Eligible Multifamily	54	494	1,705	26,983	5,817	92,066	-	-	1,363	28,507	-	-	7,180	120,572
Income Eligible Residential SUBTOTAL	582	1,046	5,353	69,392	18,265	236,767	1,056	12,748	13,657	264,306	71	1,255	33,049	515,076
Commercial & Industrial														
Large Commercial New Construction	2,178	1,624	15,683	241,640	53,512	824,475	(2,605)	(33,861)	-	-	-	-	50,907	790,614
Large Commercial Retrofit	10,109	8,629	49,147	377,001	167,689	1,286,328	(40,244)	(263,809)	-	-	-	-	127,446	1,022,519
Small Business Direct Install	1,026	803	11,254	73,625	38,399	251,210	(8,912)	(53,474)	-	-	-	-	29,487	197,736
C&I SUBTOTAL	13,313	11,056	76,085	692,267	259,600	2,362,014	(51,761)	(351,144)	-	-	-	-	207,840	2,010,869
TOTAL	19,787	21,110	126,506	980,117	431,639	3,344,161	(50,178)	(329,931)	41,315	783,802	1,773	41,641	424,549	3,839,673

Notes:
1) Lifetime savings are equal to annual savings multiplied by the expected life of measures expected to be installed in each program.

**Table E-6B - EERMC 1-2-1
National Grid
Summary of 2022 Demand Response Benefits and Savings**

	Benefits (000's)															Load Reduction (MW)	MWh Saved		
	Total	Total (Economic Excluded)	Summer Generation	Capacity				Energy				Non Electric	Societal				Summer	Annual	Lifetime
				Capacity DRIPE	Trans	Dist	Reliability	Winter		Summer			Energy DRIPE	Carbon	Economic				
								Peak	Off Peak	Peak	Off Peak								
Non-Income Eligible Residential																			
Residential Connected	\$4,828	\$3,172	\$262	\$1,074	\$802	\$794	\$235	\$0	\$0	\$0	\$0	\$0	\$0	\$4	\$1,654	8.1	65.3	65.3	
Commercial & Industrial																			
Commercial Connected	\$22,251	\$11,683	\$710	\$2,916	\$3,527	\$3,495	\$1,035	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,567	35.6	0.0	0.0	
TOTAL	\$27,079	\$14,855	\$972	\$3,990	\$4,329	\$4,289	\$1,270	\$0	\$0	\$0	\$0	\$0	\$0	\$4	\$12,221	43.7	65.3	65.3	

Table E-7 - EERMC 1-2-1
National Grid
Comparison of 2022 and 2021 Goals and Tracking

	Proposed 2022 Goal		Proposed 2022 Tracking				Approved 2021				Difference			
	Lifetime Electric Energy Savings (MWh)	Active Demand Response (kW)	Annual Electric Energy Savings (MWh)	Annual Passive Summer Demand Savings (kW)	Total Net Lifetime Energy Savings (MMBtu)	Planned Unique Participants	Lifetime Electric Energy Savings (MWh)	Annual Electric Energy Savings (MWh)	Annual Passive Summer Demand Savings (kW)	Active Demand Response (kW)	Lifetime Electric Energy Savings (MWh)	Annual Electric Energy Savings (MWh)	Annual Passive Summer Demand Savings (kW)	Active Demand Response (kW)
Non-Income Eligible Residential														
Residential New Construction	16,156		929	81	106,101	508	18,088	979	66		-1,931	-50	16	
ENERGY STAR® HVAC	85,555		5,085	264	372,218	5,752	51,309	3,181	204		34,246	1,904	60	
EnergyWise	14,874		3,070	467	455,834	13,200	14,385	2,841	445		489	229	22	
EnergyWise Multifamily	22,707		1,558	157	105,353	3,960	16,307	1,240	158		6,400	317	-1	
Home Energy Reports	26,852		26,852	3,692	91,619	323,248	26,852	26,852	3,692		0	0	0	
ENERGY STAR® Lighting	0		0	0	0	0	26,801	11,533	1,872		-26,801	-11,533	-1,872	
Residential Consumer Products	52,314		7,574	1,230	182,602	38,161	38,130	5,926	1,019		14,184	1,648	212	
Residential ConnectedSolutions		8,102				4,596				5,431				2,670
Non-Income Eligible Residential SUBTOTAL	218,458	8,102	45,068	5,891	1,313,727	389,426	191,872	52,553	7,455	5,431	26,586	-7,485	-1,564	2,670
Income Eligible Residential														
Single Family - Income Eligible Services	42,410		3,648	528	394,504	3,941	36,909	3,120	457		5,501	528	71	
Income Eligible Multifamily	26,983		1,705	54	120,572	3,960	22,545	1,554	70		4,438	151	-16	
Income Eligible Residential SUBTOTAL	69,392		5,353	582	515,076	7,901	59,454	4,674	527		9,938	679	55	
Commercial & Industrial														
Large Commercial New Construction	241,640		15,683	2,178	790,614	105	189,441	11,837	1,856		52,199	3,847	322	
Large Commercial Retrofit	377,001		49,147	10,109	1,022,519	2,463	744,562	59,496	11,648		-367,560	-10,349	-1,539	
Small Business Direct Install	73,625		11,254	1,026	197,736	539	105,134	9,696	1,134		-31,508	1,558	-108	
Commercial ConnectedSolutions		35,640				198				33,600				2,040
C&I SUBTOTAL	692,267	35,640	76,085	13,313	2,010,869	3,305	1,039,136	81,029	14,638	33,600	-346,869	-4,944	-1,325	2,040
TOTAL	980,117	43,742	126,506	19,787	3,839,673	400,632	1,290,462	138,256	22,621	39,031	-310,344	-11,750	-2,834	4,710

- Notes:
- (1) Planned 2022 participation takes into account net-to-gross and estimates unique participation by taking into account 2021 unique customer accounts to savings ratios. Therefore the number of planned measures may be more than the estimated participants shown. For measure counts please view the widget tables in Attachments 1 and 2. Table E-7 no longer includes a comparison to the previous year's participation. Due to the way unique participation is calculated it is not possible to compare year-over-year results.
 - (2) There are additional Low Income participants in Residential New Construction.
 - (3) A customer can participate in more than one program, for example, Residential Consumer Products and Home Energy Reports, therefore the population reached can be more than 100%.

**Table E-8A - EERM 1-2-1
National Grid
2022 Electric PIM Benefits, Allocations, and Categorization (\$000)**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	
	Summer Generation	Capacity DRIPE	Capacity		Reliability	Winter Peak Energy	Winter Off Peak Energy	Energy		Electric Energy DRIPE	Utility NEIs	Natural Gas and DRIPE	Non Electric		Non Resource	Carbon	Societal		
			Transmission	Distribution				Summer Peak Energy	Summer Off Peak Energy		Utility NEIs		Oil and Oil DRIPE	Propane and Water			NOx	Economic	
Non-Income Eligible Residential																			
Residential New Construction	\$53	\$47	\$103	\$102	\$1	\$400	\$524	\$157	\$120	\$308	\$0	\$0	\$364	\$1,439	\$73	\$905	\$30	\$2,310	
ENERGY STAR® HVAC	\$200	\$175	\$389	\$317	\$2	\$2,640	\$3,288	\$243	\$204	\$2,018	\$0	\$60	\$1,803	-\$18	\$422	\$4,141	\$144	\$7,596	
EnergyWise	\$162	\$178	\$320	\$317	\$2	\$296	\$302	\$196	\$172	\$347	\$0	\$0	\$9,884	\$256	\$1,394	\$3,967	\$504	\$16,024	
EnergyWise Multifamily	\$103	\$87	\$200	\$198	\$1	\$650	\$809	\$116	\$97	\$506	\$0	\$0	\$695	\$53	\$2,125	\$1,099	\$47	\$4,770	
Home Energy Reports	\$207	\$450	\$365	\$362	\$6	\$646	\$551	\$251	\$183	\$640	\$0	\$0	\$0	\$0	\$0	\$1,736	\$23	\$2,905	
Residential Consumer Products	\$368	\$792	\$827	\$819	\$10	\$993	\$1,080	\$533	\$536	\$1,646	\$0	\$16	\$46	\$45	\$5	\$2,929	\$41	\$4,674	
Income Eligible Residential SUBTOTAL	\$1,095	\$1,728	\$2,208	\$2,188	\$22	\$5,623	\$6,535	\$1,497	\$1,312	\$5,466	\$0	\$77	\$12,791	\$1,775	\$4,019	\$14,778	\$789	\$38,280	
Income Eligible Residential																			
Single Family - Income Eligible Services	\$303	\$278	\$595	\$590	\$4	\$963	\$1,065	\$451	\$465	\$882	\$273	\$85	\$5,809	\$426	\$12,060	\$3,773	\$325	\$12,550	
Income Eligible Multifamily	\$25	\$20	\$47	\$47	\$0	\$876	\$1,120	\$33	\$28	\$615	\$341	\$0	\$706	\$58	\$4,020	\$1,260	\$49	\$4,629	
Income Eligible Residential SUBTOTAL	\$327	\$299	\$643	\$637	\$4	\$1,839	\$2,185	\$484	\$493	\$1,497	\$614	\$85	\$6,516	\$484	\$16,080	\$5,033	\$374	\$17,179	
Commercial & Industrial																			
Large Commercial New Construction	\$1,687	\$1,441	\$3,299	\$3,269	\$18	\$6,257	\$3,677	\$3,981	\$2,416	\$5,318	\$0	-\$283	\$0	\$5	\$1,906	\$9,914	\$129	\$42,604	
Large Commercial Retrofit	\$3,330	\$6,589	\$7,394	\$7,326	\$83	\$7,911	\$5,695	\$5,434	\$3,408	\$11,880	\$0	-\$2,191	\$0	\$40	\$12,387	\$18,249	\$87	\$193,361	
Small Business Direct Install	\$287	\$679	\$657	\$651	\$9	\$1,578	\$923	\$1,168	\$611	\$2,374	\$0	-\$444	\$0	\$0	\$2,168	\$3,687	\$17	\$21,090	
C&I SUBTOTAL	\$5,305	\$8,709	\$11,351	\$11,246	\$109	\$15,746	\$10,295	\$10,583	\$6,435	\$19,572	\$0	-\$2,918	\$0	\$45	\$16,461	\$31,851	\$233	\$257,055	
Included in PIM? (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	
Percent Application in PIM	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	50%	50%	50%	0%	0%	0%	
Category	Electric Utility System Benefits	Resource Benefits	Resource Benefits	Resource Benefits	NA	NA	NA	NA											

Notes
From 2022 Benefit-Cost Model, reflects benefits in Table E-6

**Table E-8B - EERMC 1-2-1
National Grid
2022 Electric PIM Costs**

	(1)	(2)	(3)
	Costs (\$)		
	Eligible Spending Budget from Table E-3	Regulatory Costs	Total Costs for PIM Calculations
Non-Income Eligible Residential SUBTOTAL	\$34,298,514	\$2,834,836	\$37,133,349
Income Eligible Residential SUBTOTAL	\$18,482,952	\$2,834,836	\$21,317,788
C&I SUBTOTAL	\$60,178,243	\$2,834,836	\$63,013,079
Included in PIM? (Y/N)	Y	Y	Y

Notes

Source is Table E-2 and E-3. Regulatory costs allocated equally to each sector.

Table E-9C - EERMC 1-2-1
National Grid
2022 Electric PIM and SQA

Sector PI = min(Payout Cap)(i), [Actual Net Benefits* Design Payout Rate(g) * Payout Rate Adjustment(f)]

Sector	Planned Eligible Benefits		Planned Eligible Costs	Planned Eligible Net Benefits (4)	Design Performance Achievement	Design Performance Payout	Design Payout Rate	Design Payout Rate Thresholds	Payout Rate Adjustments	Payout Cap	Service Quality Metric
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
	100% Electric Utility System Benefits	50% Resource Benefits	Eligible Spending Budget + Regulatory Costs	=(a)-(b)-(c)	Net benefits at which design incentive pool is achieved	Set by PUC	=(f)/(e)	Achievement levels at which the Payout Rate Adjustments in (i) will be applied—Set by PUC	Factor to adjust Design Payout Rate for if final program achievement fall within the ranges in (h)—Set by PUC	=1.25*(j)	Yes if (d) ≤ 0; No if (d) > 0
										Cap on sector payout regardless of achievement in sector	See Service Quality Table
Non-income Eligible Residential	\$27,674,496	\$7,321,665	\$37,133,349	-\$2,137,188	\$2,000,000	\$500,000	25%	a. Achievement < 25% b. 25% ≤ Achievement < 50% c. 50% ≤ Achievement < 75% d. 75% ≤ Achievement e. Spending > Planned Eligible Costs	a. 0.0 b. Achievement/100 c. 0.1 d. Achievement/100 e. 0.25 f. See Boundary Rules	\$625,000	Yes
Income Eligible Residential	\$9,020,625	\$3,542,749	\$21,317,788	-\$8,754,414	\$2,000,000	\$500,000	25%			\$625,000	Yes
Commercial & Industrial	\$99,350,614	-\$1,436,469	\$63,013,079	\$34,901,066	\$34,901,066	\$5,500,000	16%			\$6,875,000	No

Sector SQA = Maximum Service Adjustment(e) * Service Achievement Scaling Factor(g)

	Planned Eligible Benefits		Planned Eligible Costs	Design Service Achievement	Maximum Service Adjustment	Service Adjustment Thresholds	Service Achievement Scaling Factors	Achievement Cost Adjustment
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	100% Electric Utility System Benefits	50% Resource Benefits	Eligible Spending Budget + Regulatory Costs	=(a)-(b)	Maximum downward adjustment to earned incentive—Set by PUC	Adjusted Achievement levels at which the Service Adjustments in (e) will be applied; adjustment is calculated in (h)	Factor to scale program achievement that fall within the ranges in (f)	Actual-cost-based adjustment factor applied to achievement. Result is if the difference between achievement and cost variances are greater than 5%, the Actual Achievement will be adjusted for use in
Non-income Eligible Residential	\$27,674,496	\$7,321,665	\$37,133,349	\$34,996,161	\$1,251,250	a. Adjusted Achievement < 65% b. 65% ≤ Adjusted Achievement < 95% c. 95% ≤ Adjusted Achievement	a. 1 b. 95-Adjusted Achievement/30 c. 0	Performance Variance = "Actual Benefits" / "Design Achievement" - "Spending" / "Planned Eligible Cost" If the absolute value (Performance Variance) ≤ 0.05, Then Adjusted Achievement = Actual Achievement Else Adjusted Achievement = Actual Achievement * (1 + Performance Variance)
Income Eligible Residential	\$9,020,625	\$3,542,749	\$21,317,788	\$12,563,374	\$715,000			
Commercial & Industrial	\$99,350,614	-\$1,436,469	\$63,013,079	N/A	N/A			

**Table E-9 - EERMC 1-2-1
National Grid
Revolving Loan Fund Projections**

Large C&I Revolving Loan Fund		Small Business Revolving Loan Fund	
(1) Total Loan Fund Deposits Through 2021	\$ 18,547,780	(1) Total Loan Fund Deposits Through 2021	\$ 3,303,570
(2) Current Loan Fund Balance	\$ 7,208,593	(2) Current Loan Fund Balance	\$ 2,743,078
<i>Loans Paid Year-To-Date</i>	\$ 3,356,693	<i>Loans Paid Year-To-Date</i>	\$ 570,365
<i>Repayments Year-To-Date</i>	\$ 2,946,562	<i>Repayments Year-To-Date</i>	\$ 606,588
(3) Projected Additional Loans by Year End 2021	\$ 5,770,777	(3) Projected Additional Loans by Year End 2021	\$ 510,000
(4) Projected Additional Repayments by Year End 2021	\$ 2,453,636	(4) Projected Additional Repayments by Year End 2021	\$ 275,529
(5) Projected Year End Loan Fund Balance 2021	\$ 3,891,451	(5) Projected Year End Loan Fund Balance 2021	\$ 2,508,608
(6) 2022 Fund Injection	\$ 2,200,000	(6) 2022 Fund Injection	\$ -
(7) Projected Loan Fund Balance, January 2022	\$ 6,091,451	(7) Projected Loan Fund Balance, January 2022	\$ 2,508,608
(8) Projected Repayments throughout 2022	\$ 3,881,906	(8) Projected Repayments throughout 2022	\$ 245,746
(9) Estimated Loans in 2022	\$ 8,928,261	(9) Estimated Loans in 2022	\$ 1,500,000
(10) Projected Year End Loan Fund Balance 2022	\$ 1,045,095	(10) Projected Year End Loan Fund Balance 2022	\$ 1,254,353

Public Sector Revolving Loan Fund		Efficient Buildings Fund	
(1) Total Loan Fund Deposits Through 2021	\$ 54,065	(1) Energy Efficiency Funds allocated to EBF through 2021	\$ 27,087,113
(2) Current Loan Fund Balance	\$ 34,124	(2) Total EBF Loans Outstanding	\$ 55,075,045
<i>Funds returned to OER</i>	\$ -		
<i>Repayments Year-To-Date</i>	\$ 34,052		
(3) Projected Additional Loans by Year End	\$ -		
(4) Projected Additional Repayments by Year End	\$ 15,523		
(5) Projected Year End Loan Fund Balance 2021	\$ 49,647		
(6) 2022 Fund Injection	\$ -		
(7) Projected Loan Fund Balance, January 2022	\$ 49,647		
(8) Projected Repayments throughout 2022	\$ 2,945		
(9) Estimated Loans in 2022	\$ -		
(10) Projected Year End Loan Fund Balance 2022	\$ 52,592		

Notes

- 1 Funding injections since loan funds began. Net of any adjustments.
- 2 Current Loan Fund Balance is through July 2021; it includes all loans and repayments made by July 2021. Public Sector Revolving Loan Fund reduced by transfers to RI PEP Incentives. EBF reports in terms of loans outstanding.
- 3 Projected Loans from July to Year-End 2021 is estimated based on projects currently under construction that are anticipated to be paid out by year-end. It is difficult to project this amount accurately due to the fact that projects could be delayed by a month or two resulting in payment occurring in 2022 instead of 2021.
- 4 Projected Repayments from June to Year-End 2021 is estimated based on the monthly average amount of repayments.
- 5 Equal to (2) - (3) + (4).
- 6 Fund injection of \$2M for the Large C&I Revolving Loan Fund in included under the Finance Cost line in table E-2.
- 7 Equal to (5) + (6).
- 8 Assumption based on monthly average repayments in 2021 over 12 month period; repayments accumulate over time and may vary widely.
- 9 Amount projected to be lent to customers in 2022
- 10 Equal to (7) + (8) - (9).
- 11 Efficient Buildings Fund - The 2022 Annual Plan only includes two values for EBF: 1) The Energy Efficiency Funds allocated to EBF through 2021. This assumes that the \$5M allocated to EBF for 2021 will be transferred to RIIB in 2021. 2) Total EBF Loans Outstanding as of July 2021. Additional information is not available because RIIB has informed the Company that, commencing with the 2022 Plan, it will not be providing forward looking projections to the Company regarding EBF. The Company is therefore unable to provide any future projections in the 2022 Annual Plan regarding EBF. The state's System Reliability and Least Cost procurement statute (amended in 2021) directs that \$5M shall be transferred to RIIB. However, RIIB has not informed the Company the statutory \$5M transfer to RIIB in 2022 will go to EBF.

Table E-10 - EERMC 1-2-1
National Grid
Rhode Island Electric Energy Efficiency 2003 - 2022
\$(000)

Electric	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013 ⁽⁴⁾	2014	2015	2016	2017	2018	2019	2020 ⁽⁵⁾	2021 ⁽⁶⁾	2022 ⁽⁵⁾
Energy Efficiency Budget (\$Million) ⁽¹⁾	\$23.1	\$22.6	\$23.1	\$22.4	\$22.5	\$21.0	\$32.4	\$37.6	\$59.2	\$61.4	\$77.5	\$87.0	\$86.6	\$87.5	\$94.6	\$94.6	\$107.5	\$111.1	\$116.8	\$133.8
Spending Budget (\$Million) ⁽²⁾	\$16.3	\$15.8	\$17.6	\$16.5	\$16.4	\$14.7	\$23.5	\$28.8	\$45.3	\$55.3	\$64.8	\$80.6	\$77.3	\$77.6	\$88.5	\$88.7	\$98.1	\$101.1	\$104.8	\$113.0
Actual Expenditures (\$Million) ⁽³⁾	\$22.8	\$19.5	\$23.4	\$23.7	\$21.9	\$19.2	\$31.7	\$29.7	\$40.0	\$50.7	\$72.9	\$85.3	\$87.4	\$78.4	\$94.8	\$93.0	\$100.7	\$88.2		
Incentive Percentage ⁽¹⁰⁾	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	N/A	N/A
Target Incentive ⁽¹¹⁾	\$712,557	\$781,959	\$774,689	\$726,627	\$723,000	\$647,689	\$1,035,943	\$1,267,043	\$1,992,513	\$2,434,131	\$3,240,747	\$4,032,000	\$3,867,400	\$3,878,087	\$4,425,528	\$4,436,022	\$4,905,009	\$5,054,448	\$5,500,000	\$5,500,000
Earned Incentive	\$712,557	\$604,876	\$795,648	\$760,623	\$716,075	\$675,282	\$1,085,888	\$1,333,996	\$1,929,273	\$2,469,411	\$2,997,681	\$4,223,321	\$4,533,360	\$4,128,034	\$4,829,847	\$4,940,402	\$3,290,237	\$3,242,675		
Annual Summer Demand kW Savings Goal Achieved (%)				106%	106%	113%	142%	78%	71%	83%	114%	78%	112%	101%	103%	116%	98%	79%		
Annual MWh Energy Savings Goal Achieved (%)				111%	102%	111%	115%	107%	94%	93%	99%	105%	115%	107%	115%	110%	98%	88%		
Energy Efficiency Program Charge (\$/kWh) ⁽⁷⁾	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00320	\$0.00320	\$0.00526	\$0.00592	\$0.00876	\$0.00911	\$0.00953	\$0.01077	\$0.01124	\$0.00972	\$0.01121	\$0.01323	\$0.01113	\$0.01580
Annual Cost to 500 kWh/month Residential Customer w/o tax ⁽⁸⁾	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$19.20	\$19.20	\$31.56	\$35.52	\$52.56	\$54.66	\$57.18	\$64.62	\$67.44	\$58.32	\$67.26	\$79.38	\$66.78	\$94.80
Annual Cost to 500 kWh/month Residential Customer w/ tax ⁽⁹⁾	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50	\$20.00	\$20.00	\$32.88	\$37.00	\$54.75	\$56.94	\$59.56	\$67.31	\$70.25	\$60.75	\$70.06	\$82.69	\$69.56	\$98.75

Notes:

- (1) Energy Efficiency Budget includes total expenditures and commitments. Includes all demand side management program-related expenses, including rebates, administration and general expenses, evaluation, commitments for future years and Company incentive.
- (2) Prior to 2017, Spending Budget Eligible for Shareholder Incentive includes: Implementation, Administration, General, and Evaluation Expenses; excludes EERMC and OER Costs, Commitments, Copays, and Outside Finance Costs. Beginning in 2017, Outside Finance Costs were also included. Beginning in 2018 Pilot expenses were also excluded. Beginning in 2019 ConnectedSolutions expenses and assessments were also excluded.
- (3) Actual Expenditures is actual spend during calendar year. Includes expenditures and commitments. Includes all demand side management program-related expenses, including rebates, administration and general expenses, evaluation, commitments for future years and Company incentive.
- (4) In the Company's gas and electric rate cases in docket 4323, the PUC approved the uncollectibles gross-up in the electric EE Program Charge effective February 1, 2013, and a new rate applicable to the gross-up of the gas EE Program Charge, effective February 1, 2013.
- (5) 2021 values are planned.
- (6) 2022 values are proposed.
- (7) Beginning in 2012, the EE Program Charge includes the System Reliability Factor. It does not include the \$0.0003 renewables per RI General Laws §39-2-1.2 and Order #19608, which appears on customer bills.
- (8) Reflects the annual cost excluding Gross Earnings Tax.
- (9) Reflects the annual cost including Gross Earnings Tax.
- (10) Incentive percentage not applicable for 2021 due to new performance incentive mechanism developed for the 2021 Annual Plan. See Section 11 of the Main Text of the 2022 Annual Plan for additional details.
- (11) Target incentive is calculated in the same way as in 2021 in order to provide a more accurate estimate of the energy efficiency surcharge.

**Table G-1 - EERMC 1-2-2
National Grid
Gas DSM Funding Sources in 2022 by Sector
\$(000)**

	<u>Projections by Sector</u>			Total
	Income Eligible Residential	Non-Income Eligible Residential	Commercial & Industrial	
(1) Projected Budget (from G-2):	\$10,307.3	\$17,084.1	\$12,834.2	\$40,225.7
Sources of Other Funding:				
(2) Projected Year-End 2021 Fund Balance and Interest:	\$0.0	(\$7,849.6)	\$2,773.5	(\$5,076.1)
(3) Total Other Funding:	\$0.0	(\$7,849.6)	\$2,773.5	(\$5,076.1)
(4) Customer Funding Required:	\$10,307.3	\$24,933.7	\$10,060.8	\$45,301.8
(5) Forecasted Firm Dth Volume	1,685,277	18,876,534	19,843,867	40,405,678
(6) Forecasted Non Firm Dth Volume			2,278,545	2,278,545
(7) Less: Exempt DG Customers			(1,244,516)	(1,244,516)
(8) Forecasted Dth Volume:	1,685,277	18,876,534	20,877,896	41,439,707
Average Energy Efficiency Program Charge per Dth				
(9) excluding Uncollectible Recovery:				\$1.093
(10) Proposed Energy Efficiency Program Charge per Dth excluding Uncollectible Recovery	\$1.280	\$1.280	\$0.908	
(11) Currently Effective Uncollectible Rate	<u>1.91%</u>	<u>1.91%</u>	<u>1.91%</u>	
(12) Proposed Energy Efficiency Program Charge per Dth, including Uncollectible Recovery:	\$1.304	\$1.304	\$0.925	
(13) Currently Effective Energy Efficiency Program Charge per Dth	\$0.871	\$0.871	\$0.596	
(14) Adjustment to Reflect Fully Reconciling Funding Mechanism	\$0.433	\$0.433	\$0.329	

Notes

- (1) Projected Budget from G-2 includes OER and EERMC costs allocated to each sector based on forecasted volume.
- (2) Fund Balance projections include projected revenue and spend through year-end with Residential and C&I sector subsidies applied to Income Eligible as detailed in the 2022 EE Plan Table G-1. The Company proposes to refile this table with updated Fund Balance projections on November 17, 2021 as proposed in Section 10 of the Plan's Main Text.
- (10) The proposed EE program charges allow for the use of collections from one sector to fund energy efficiency services in other sectors that would otherwise not be supported with the proposed collection rates. The C&I charge includes collection of \$7.64 million of which \$4.17 million will be allocated to the low income sector and \$3.47 million to the residential sector.
- (11) Uncollectible rate approved in Docket No. 4770.

**Table G-2 - EERMC 1-2-2
National Grid
2022 Gas Energy Efficiency Program Budget (\$000)**

	Program Planning and Administration	Marketing	Cost of services and product rebates/incentives provided to customers	Sales, Technical Assistance and Training	Evaluation & Market Research	Performance Incentive	Grand Total
Non-Income Eligible Residential:							
ENERGY STAR [®] HVAC	\$125.0	\$227.5	\$3,364.8	\$262.5	\$125.9	\$0.0	\$4,105.7
EnergyWise	\$219.9	\$78.2	\$7,741.5	\$1,290.6	\$180.3	\$0.0	\$9,510.5
EnergyWise Multifamily	\$53.2	\$61.1	\$1,337.6	\$169.8	\$16.4	\$0.0	\$1,638.1
Home Energy Reports	\$10.6	\$0.0	\$0.0	\$472.0	\$3.3	\$0.0	\$486.0
Residential Pilots	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Residential New Construction	\$33.2	\$2.3	\$365.4	\$126.7	\$36.9	\$0.0	\$564.5
Comprehensive Marketing - Residential	\$0.1	\$74.8	\$0.0	\$0.0	\$0.0	\$0.0	\$74.8
Community Based Initiatives - Residential	\$12.3	\$45.8	\$35.3	\$0.0	\$0.0	\$0.0	\$93.5
Residential Performance Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Subtotal - Non-Income Eligible Residential	\$454.4	\$489.7	\$12,844.5	\$2,321.7	\$362.8	\$0.0	\$16,473.1
Income Eligible Residential:							
Single Family - Income Eligible Services	\$147.8	\$27.4	\$5,518.0	\$1,285.7	\$30.0	\$0.0	\$7,008.9
Income Eligible Multifamily	\$79.8	\$9.3	\$2,721.9	\$400.6	\$32.2	\$0.0	\$3,243.8
Income Eligible Performance Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Subtotal - Income Eligible Residential	\$227.5	\$36.7	\$8,240.0	\$1,686.3	\$62.2	\$0.0	\$10,252.8
Commercial & Industrial							
Large Commercial New Construction	\$130.3	\$167.3	\$1,799.6	\$1,169.9	\$238.2	\$0.0	\$3,505.2
Large Commercial Retrofit	\$227.1	\$288.0	\$2,797.3	\$1,688.7	\$164.8	\$0.0	\$5,165.9
Small Business Direct Install	\$6.4	\$34.3	\$296.9	\$48.9	\$5.0	\$0.0	\$391.5
Commercial & Industrial Multifamily	\$29.0	\$28.5	\$831.6	\$156.7	\$7.2	\$0.0	\$1,053.0
Commercial Pilots	\$0.0	\$8.3	\$196.1	\$33.0	\$0.0	\$0.0	\$237.4
Finance Costs	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Community Based Initiatives - C&I	\$4.1	\$15.3	\$11.8	\$0.0	\$0.0	\$0.0	\$31.2
Commercial Workforce Development	\$0.0	\$0.0	\$0.0	\$74.3	\$0.0	\$0.0	\$74.3
Commercial & Industrial Performance Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,700.0	\$1,700.0
Subtotal - Commercial & Industrial	\$396.8	\$541.6	\$5,933.3	\$3,171.5	\$415.2	\$1,700.0	\$12,158.4
Regulatory							
EERMC	\$536.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$536.6
OER	\$804.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$804.9
Subtotal - Regulatory	\$1,341.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,341.4
Grand Total	\$2,420.1	\$1,068.1	\$27,017.7	\$7,179.5	\$840.2	\$1,700.0	\$40,225.7

Notes:

- (1) OER and EERMC is equal to 3% of total collections from customers' Energy Efficiency Program Charge, reduced by 3%.
- (2) Demonstrations and Assessments are included in specific program level budgets listed above. More information on Demonstration and Assessments descriptions, budgets, and which program level budget they are included in can be found in Attachment 8.

**Table G-3 - EERMC 1-2-2
National Grid
Derivation of the 2022 Spending & Implementation Budgets (\$000)**

	Proposed 2022 Budget From G-2 (\$000)	Outside Finance and Stakeholder Oversight Costs (\$000)	Performance Incentive (\$000)	Eligible Sector Spending Budget for Performance Incentive on G-9 (\$000) ¹	Implementation Expenses for Cost-Effectiveness on G-5 (\$000) ²
Non-Income Eligible Residential					
ENERGY STAR® HVAC	\$4,105.7				\$4,105.7
EnergyWise	\$9,510.5				\$9,510.5
EnergyWise Multifamily	\$1,638.1				\$1,638.1
Home Energy Reports	\$486.0				\$486.0
Residential Pilots	\$0.0				\$0.0
Residential New Construction	\$564.5				\$564.5
Comprehensive Marketing - Residential	\$74.8				\$74.8
Community Based Initiatives - Residential	\$93.5				\$93.5
Residential Performance Incentive	\$0.0		\$0.0		\$0.0
Subtotal - Non-Income Eligible Residential	\$16,473.1	\$0.0	\$0.0	\$16,473.1	\$16,473.1
Income Eligible Residential					
Single Family - Income Eligible Services	\$7,008.9				\$7,008.9
Income Eligible Multifamily	\$3,243.8				\$3,243.8
Income Eligible Performance Incentive	\$0.0		\$0.0		\$0.0
Subtotal - Income Eligible Residential	\$10,252.8	\$0.0	\$0.0	\$10,252.8	\$10,252.8
Commercial & Industrial					
Large Commercial New Construction	\$3,505.2				\$3,505.2
Large Commercial Retrofit	\$5,165.9				\$5,165.9
Small Business Direct Install	\$391.5				\$391.5
Commercial & Industrial Multifamily	\$1,053.0				\$1,053.0
Commercial Pilots	\$237.4				\$237.4
Finance Costs	\$0.0	\$0.0			\$0.0
Community Based Initiatives - C&I	\$31.2				\$31.2
Commercial Workforce Development	\$74.3				\$74.3
Commercial & Industrial Performance Incentive	\$1,700.0		\$1,700.0		\$0.0
Subtotal - Commercial & Industrial	\$12,158.4	\$0.0	\$1,700.0	\$10,190.0	\$10,458.4
Regulatory					
EERMC	\$536.6	\$536.6			\$536.6
OER	\$804.9	\$804.9			\$804.9
Subtotal - Regulatory	\$1,341.4	\$1,341.4			\$1,341.4
Grand Total	\$40,225.7	\$1,341.4	\$1,700.0	\$36,915.9	\$38,525.7

Notes:

- (1) Eligible Sector Spending Budget for Performance Incentive = Budget from G-2 minus Regulatory Costs, Pilots, Assessments, and Performance Incentive.
- (2) Implementation Expenses = Budget from G-2 minus Performance Incentive.
- (3) Eligible Sector Spending Budget does not include assessments, see Attachment 8 for assessments budgets.

**Table G-4 - EERMC 1-2-2
National Grid
Proposed 2022 Budget Compared to Approved 2021 Budget (\$000)**

	Proposed Budget 2022 from G-2	2021 Approved Gas Budget	Difference
Non-Income Eligible Residential			
ENERGY STAR® HVAC	\$4,105.7	\$3,673.0	\$432.7
EnergyWise	\$9,510.5	\$8,117.6	\$1,392.9
EnergyWise Multifamily	\$1,638.1	\$1,491.6	\$146.5
Home Energy Reports	\$486.0	\$450.9	\$35.1
Residential Pilots	\$0.0	\$0.0	\$0.0
Residential New Construction	\$564.5	\$674.8	-\$110.3
Comprehensive Marketing - Residential	\$74.8	\$64.8	\$10.1
Community Based Initiatives - Residential	\$93.5	\$75.8	\$17.6
Residential Performance Incentive	\$0.0	\$595.0	-\$595.0
Subtotal - Non-Income Eligible Residential	\$16,473.1	\$15,143.5	\$1,329.6
Income Eligible Residential			
Single Family - Income Eligible Services	\$7,008.9	\$5,952.3	\$1,056.6
Income Eligible Multifamily	\$3,243.8	\$3,009.4	\$234.4
Income Eligible Performance Incentive	\$0.0	\$425.0	-\$425.0
Subtotal - Income Eligible Residential	\$10,252.8	\$9,386.8	\$866.0
Commercial & Industrial			
Large Commercial New Construction	\$3,505.2	\$2,634.2	\$871.1
Large Commercial Retrofit	\$5,165.9	\$5,054.1	\$111.8
Small Business Direct Install	\$391.5	\$332.7	\$58.8
Commercial & Industrial Multifamily	\$1,053.0	\$953.2	\$99.8
Commercial Pilots	\$237.4	\$215.8	\$21.6
Finance Costs	\$0.0	\$0.0	\$0.0
Community Based Initiatives - C&I	\$31.2	\$24.8	\$6.3
Commercial Workforce Development	\$74.3	\$0.0	\$74.3
Commercial & Industrial Performance Incentive	\$1,700.0	\$680.0	\$1,020.0
Subtotal Commercial & Industrial	\$12,158.4	\$9,894.8	\$2,263.6
Regulatory			
EERMC	\$536.6	\$275.1	\$261.5
OER	\$804.9	\$275.1	\$529.8
Subtotal Regulatory	\$1,341.4	\$550.1	\$791.3
TOTAL BUDGET	\$40,225.7	\$34,975.2	\$5,250.5

Notes:

- (1) Program Implementation Budget excludes Commitments, Company Incentive; derived on Table G-3
- (2) Total Budget includes Implementation, Commitments; illustrated on Table G-3
- (3) Performance Incentive is allocated to the C&I Sector Consistent with the final PIM approved in Docket 5076.

**Table G-5 - Primary - EERMC 1-2-2
National Grid
Calculation of 2022 Program Year Cost-Effectiveness
All Dollar Values in (\$000)**

	Rhode Island Benefit/ Cost	Total Benefit	Program Implementation Expenses	Customer Contribution	Performance Incentive	\$/Lifetime MMBtu
Non-Income Eligible Residential						
Energy Star® HVAC	1.00	\$8,411.9	\$4,105.7	\$4,282.2		\$17.34
EnergyWise	1.13	\$11,536.0	\$9,510.5	\$737.3		\$19.47
EnergyWise MultiFamily	3.45	\$6,948.9	\$1,638.1	\$378.4		\$12.47
Home Energy Reports	3.52	\$1,712.1	\$486.0	\$0.0		\$5.20
Residential New Construction	1.58	\$1,667.2	\$564.5	\$491.7		\$15.28
Comprehensive Marketing - Residential			\$74.8			
Community Based Initiatives - Residential			\$93.5			
Residential Pilots			\$0.0			
Residential Workforce Development			\$0.0			
Non-Income Eligible Residential Subtotal	1.35	\$30,276.1	\$16,473.1	\$5,889.6	\$0.0	16.76
Income Eligible Residential						
Single Family - Income Eligible Services	2.04	\$14,278.5	\$7,008.9	\$0.0		\$29.13
Income Eligible Multifamily	5.98	\$19,385.4	\$3,243.8	\$0.0		\$10.80
Income Eligible Workforce Development		\$0.0	\$0.0			
Income Eligible Residential Subtotal	3.28	\$33,663.8	\$10,252.8	\$0.0	\$0.0	18.95
Large Commercial & Industrial						
Large Commercial New Construction	5.52	\$20,839.3	\$3,505.2	\$267.4		\$4.35
Large Commercial Retrofit	5.19	\$42,895.8	\$5,165.9	\$3,091.2		\$5.63
Small Business Direct Install	3.95	\$1,854.7	\$391.5	\$78.5		\$4.66
Commercial & Industrial Multifamily	5.86	\$6,712.5	\$1,053.0	\$92.4		\$7.92
Commercial Pilots			\$237.4			
Community Based Initiatives - C&I			\$31.2			
Finance Costs			\$0.0			
Commercial Workforce Development			\$74.3			
Commercial & Industrial Subtotal	4.61	\$72,302.4	\$10,458.4	\$3,529.5	\$1,700.0	5.42
Regulatory						
EERMC			\$536.6			
OER			\$804.9			
Regulatory Subtotal			\$1,341.4			
Grand Total	2.74	\$136,242.3	\$38,525.7	\$9,419.0	\$1,700.0	10.76

Notes:

- (1) RI Test B/C Test = Total Benefits from Table G-6 excluding Economic Benefits / Program Implementation Expenses from Table G-3. Also includes effects of free-ridership and spillover.
- (2) For Implementation Expenses derivation, see Table G-3.

**Table G-5 - Secondary - EERMC 1-2-2
National Grid
Calculation of 2022 Program Year Cost-Effectiveness with Economic Benefits Included
All Dollar Values in (\$000)**

	Rhode Island Benefit/ Cost	Total Benefit	Program Implementation Expenses	Customer Contribution	Performance Incentive	\$/Lifetime MMBtu
Non-Income Eligible Residential						
Energy Star® HVAC	1.41	\$11,819.6	\$4,105.7	\$4,282.2		\$17.34
EnergyWise	2.06	\$21,141.6	\$9,510.5	\$737.3		\$19.47
EnergyWise MultiFamily	4.77	\$9,619.0	\$1,638.1	\$378.4		\$12.47
Home Energy Reports	4.58	\$2,227.2	\$486.0	\$0.0		\$5.20
Residential New Construction	1.70	\$1,791.4	\$564.5	\$491.7		\$15.28
Comprehensive Marketing - Residential			\$74.8			
Community Based Initiatives - Residential			\$93.5			
Residential Pilots			\$0.0			
Residential Workforce Development			\$0.0			
Non-Income Eligible Residential Subtotal	2.08	\$46,598.9	\$16,473.1	\$5,889.6	\$0.0	\$16.76
Income Eligible Residential						
Single Family - Income Eligible Services	3.03	\$21,217.3	\$7,008.9	\$0.0		\$29.13
Income Eligible Multifamily	7.53	\$24,413.3	\$3,243.8	\$0.0		\$10.80
Income Eligible Workforce Development			\$0.0			
Income Eligible Residential Subtotal	4.45	\$45,630.6	\$10,252.8	\$0.0	\$0.0	\$18.95
Large Commercial & Industrial						
Large Commercial New Construction	6.84	\$25,816.7	\$3,505.2	\$267.4		\$4.35
Large Commercial Retrofit	6.78	\$55,965.6	\$5,165.9	\$3,091.2		\$5.63
Small Business Direct Install	5.40	\$2,539.8	\$391.5	\$78.5		\$4.66
Commercial & Industrial Multifamily	7.60	\$8,702.7	\$1,053.0	\$92.4		\$7.92
Commercial Pilots			\$237.4			
Community Based Initiatives - C&I			\$31.2			
Finance Costs			\$0.0			
Commercial Workforce Development			\$74.3			
Commercial & Industrial Subtotal	5.93	\$93,024.9	\$10,458.4	\$3,529.5	\$1,700.0	\$5.42
Regulatory						
EERMC			\$536.6			
OER			\$804.9			
Regulatory Subtotal			\$1,341.4			
Grand Total	3.73	\$185,254.4	\$38,525.7	\$9,419.0	\$1,700.0	\$10.76

Notes:

- (1) RI Test B/C Test = Total Benefits from Table G-6 including Economic Benefits / Program Implementation Expenses from Table G-3
Also includes effects of free-ridership and spillover.
- (2) For Implementation Expenses derivation, see Table G-3.

**Table G-5A - EERMC 1-2-2
National Grid
Calculation of 2022 Program Year Cost-Effectiveness with TRC Test
All Dollar Values in (\$000)**

	TRC Benefit/ Cost	Total Benefit	Program Implementation Expenses	Customer Contribution	Performance Incentive	\$/Lifetime MMBtu
Non-Income Eligible Residential						
Energy Star® HVAC	0.60	\$5,018.8	\$4,105.7	\$4,282.2		\$17.3
EnergyWise	0.82	\$8,383.8	\$9,510.5	\$737.3		\$19.5
EnergyWise MultiFamily	2.91	\$5,862.3	\$1,638.1	\$378.4		\$12.5
Home Energy Reports	1.54	\$749.9	\$486.0	\$0.0		\$5.2
Residential New Construction	1.16	\$1,226.3	\$564.5	\$491.7		\$15.3
Comprehensive Marketing - Residential			\$74.8			
Community Based Initiatives - Residential			\$93.5			
Residential Pilots			\$0.0			
Residential Workforce Development			\$0.0			
Non-Income Eligible Residential Subtotal	0.95	\$21,241.2	\$16,473.1	\$5,889.6	\$0.0	\$16.8
Income Eligible Residential						
Single Family - Income Eligible Services	1.81	\$12,677.2	\$7,008.9	\$0.0		\$29.1
Income Eligible Multifamily	5.37	\$17,428.2	\$3,243.8	\$0.0		\$10.8
Income Eligible Workforce Development			\$0.0			\$0.0
Income Eligible Residential Subtotal	2.94	\$30,105.4	\$10,252.8	\$0.0	\$0.0	\$19.0
Large Commercial & Industrial						
Large Commercial New Construction	3.84	\$14,478.5	\$3,505.2	\$267.4		\$4.3
Large Commercial Retrofit	3.73	\$30,763.3	\$5,165.9	\$3,091.2		\$5.6
Small Business Direct Install	2.36	\$1,110.4	\$391.5	\$78.5		\$4.7
Commercial & Industrial Multifamily	4.92	\$5,639.7	\$1,053.0	\$92.4		\$7.9
Commercial Pilots			\$237.4	\$0.0		
Community Based Initiatives - C&I			\$31.2	\$0.0		
Finance Costs			\$0.0	\$0.0		
Commercial Workforce Development			\$74.3	\$0.0		
Commercial & Industrial Subtotal	3.31	\$51,992.0	\$10,458.4	\$3,529.5	\$1,700.0	\$5.4
Regulatory						
EERMC			\$536.6			
OER			\$804.9			
Regulatory Subtotal			\$1,341.4			
Grand Total	2.08	\$103,338.5	\$38,525.7	\$9,419.0	\$1,700.0	\$10.8

Notes:

(1) TRC B/C Test = (Energy + Capacity + Resource Benefits) / (Program Implementation + Customer Contribution + Performance Incentive)

Also includes effects of free-ridership and spillover.

(2) For Implementation Expenses derivation, see Table G-3.

Table G-6 - EERMC 1-2-2
National Grid
Summary of 2022 Benefits by Program

	Benefits (\$000)																			
	Total	Total (Economic Excluded)	Natural Gas Benefits		Electric Capacity					Electric Energy				Non-Electric and Non-Gas			Societal			
			Natural Gas	Natural Gas DRIPE	Summer Generation	Capacity DRIPE	Trans	Dist	Reliability	Winter		Summer		Electric Energy DRIPE	Oil	Other Resource	Non Resource	Carbon	NOx	Economic
Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak																	
Non-Income Eligible Residential																				
EnergyWise	\$21,142	\$11,536	\$4,535	\$37	\$64	\$111	\$83	\$82	\$6	\$51	\$58	\$52	\$45	\$39	\$0	\$56	\$3,165	\$2,809	\$343	\$9,606
Energy Star@ HVAC	\$11,820	\$8,412	\$4,098	\$46	\$8	\$22	\$11	\$11	\$1	-\$8	-\$7	\$5	\$4	-\$2	\$0	\$210	\$620	\$3,072	\$321	\$3,408
EnergyWise Multifamily	\$9,619	\$6,949	\$1,392	\$15	\$8	\$18	\$11	\$11	\$1	\$1	\$1	\$6	\$5	\$3	\$0	\$47	\$4,343	\$980	\$106	\$2,670
Home Energy Reports	\$2,227	\$1,712	\$725	\$25	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$898	\$64	\$515
Residential New Construction	\$1,791	\$1,667	\$600	\$6	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8	\$612	\$395	\$46	\$124
Non-Income Eligible Residential SUBTOTAL	\$46,599	\$30,276	\$11,350	\$129	\$80	\$152	\$104	\$103	\$8	\$45	\$52	\$63	\$55	\$40	\$0	\$321	\$8,740	\$8,155	\$880	\$16,323
Income Eligible Residential																				
Single Family - Income Eligible Services	\$21,217	\$14,278	\$2,115	\$20	\$27	\$54	\$36	\$36	\$3	\$32	\$38	\$21	\$19	\$26	\$0	\$0	\$10,250	\$1,441	\$160	\$6,939
Income Eligible Multifamily	\$24,413	\$19,385	\$2,611	\$26	\$5	\$15	\$6	\$6	\$1	\$1	\$0	\$3	\$3	\$2	\$0	\$57	\$14,691	\$1,759	\$198	\$5,028
Income Eligible Residential SUBTOTAL	\$45,631	\$33,664	\$4,726	\$46	\$32	\$69	\$42	\$42	\$3	\$33	\$38	\$25	\$21	\$29	\$0	\$57	\$24,942	\$3,200	\$358	\$11,967
Commercial & Industrial																				
Large Commercial New Construction	\$25,817	\$20,839	\$6,307	\$73	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$52	\$8,046	\$5,743	\$617	\$4,977
Large Commercial Retrofit	\$55,966	\$42,896	\$11,508	\$231	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$43	\$18,981	\$11,078	\$1,054	\$13,070
Small Business Direct Install	\$2,540	\$1,855	\$780	\$10	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$321	\$0	\$672	\$72	\$685
Commercial & Industrial Multifamily	\$8,703	\$6,713	\$1,178	\$16	\$5	\$14	\$6	\$6	\$1	\$1	\$0	\$3	\$3	\$2	\$0	\$28	\$4,377	\$970	\$103	\$1,990
Commercial & Industrial SUBTOTAL	\$93,025	\$72,302	\$19,773	\$330	\$5	\$14	\$6	\$6	\$1	\$1	\$0	\$3	\$3	\$2	\$0	\$444	\$31,404	\$18,464	\$1,846	\$20,722
Grand Total	\$185,254	\$136,242	\$35,849	\$505	\$117	\$235	\$153	\$151	\$12	\$78	\$90	\$91	\$79	\$71	\$0	\$822	\$65,086	\$29,819	\$3,084	\$49,012

**Table G-6A - EERMC 1-2-2
National Grid
Summary of 2022 Impacts by Program**

	Gas Saved (MMBtu)	
	Annual	Lifetime
Non-Income Eligible Residential		
EnergyWise	22,931	526,317
Energy Star® HVAC	29,420	483,769
EnergyWise Multifamily	9,107	161,770
Home Energy Reports	93,548	93,548
Residential New Construction	3,768	69,135
Non-Income Eligible Residential SUBTOTAL	158,774	1,334,539
Income Eligible Residential		
Single Family - Income Eligible Services	12,031	240,616
Income Eligible Multifamily	16,162	300,322
Income Eligible Residential SUBTOTAL	28,193	540,938
Commercial & Industrial		
Large Commercial New Construction	58,252	867,645
Large Commercial Retrofit	157,175	1,465,745
Small Business Direct Install	6,725	100,870
Commercial & Industrial Multifamily	9,698	144,560
Commercial & Industrial SUBTOTAL	231,849	2,578,819
Grand Total	418,816	4,454,297

Notes:

1) Lifetime savings are equal to annual savings multiplied by the expected life of measures expected to be installed in each program.

**Table G-7 - EERMC 1-2-2
National Grid
Comparison of 2022 and 2021 Goals**

	Proposed 2022 Goal	Proposed 2022 Tracking		Approved 2021		Difference	
	Lifetime Energy Savings (MMBtu Natural Gas)	Annual Energy Savings (MMBtu Natural Gas)	Planned Unique Participants	Lifetime Energy Savings (MMBtu Natural Gas)	Annual Energy Savings (MMBtu Natural Gas)	Lifetime Energy Savings (MMBtu Natural Gas)	Annual Energy Savings (MMBtu Natural Gas)
Non-Income Eligible Residential							
EnergyWise	526,317	22,931	1,937	476,550	20,869	49,768	2,062
Energy Star® HVAC	483,769	29,420	3,368	667,485	38,345	-183,716	-8,925
EnergyWise Multifamily	161,770	9,107	4,400	148,675	8,633	13,095	474
Home Energy Reports	93,548	93,548	152,324	93,548	93,548	0	0
Residential New Construction	69,135	3,768	318	85,272	4,445	-16,137	-677
Non-Income Eligible Residential SUBTOTAL	1,334,539	158,774	162,348	1,471,530	165,840	-136,991	-7,066
Income Eligible Residential							
Single Family - Income Eligible Services	240,616	12,031	1,208	201,104	10,055	39,512	1,976
Income Eligible Multifamily	300,322	16,162	3,465	315,545	14,399	-15,223	1,763
Income Eligible Residential SUBTOTAL	540,938	28,193	4,673	516,649	24,454	24,289	3,739
Commercial & Industrial							
Large Commercial New Construction	867,645	58,252	104	437,398	27,631	430,247	30,621
Large Commercial Retrofit	1,465,745	157,175	68	1,455,776	187,283	9,969	-30,108
Small Business Direct Install	100,870	6,725	187	48,861	4,886	52,008	1,839
Commercial & Industrial Multifamily	144,560	9,698	802	141,869	9,444	2,690	254
Commercial & Industrial SUBTOTAL	2,578,819	231,849	1,161	2,083,905	229,243	494,914	2,606
TOTAL	4,454,297	418,816	168,182	4,072,084	419,537	382,213	-721

Notes:

- (1) Participants can participate in more than one program, for example Home Energy Reports and EnergyWise.
- (2) Planned 2022 participation takes into account net-to-gross and estimates unique participation by taking into account 2021 unique customer accounts to savings ratios. Therefore the number of planned measures may be more than the planned participants. For measure counts please view the widgets tables at the end of the Residential and C&I text sections. Table G-7 no longer includes a comparison to the previous year's participation. Due to the way unique participation is calculated it is not possible to compare year-over-year results.

**Table G-8A - EERMC 1-2-2
National Grid
2022 Gas PIM Benefits, Allocations, and Categorization (\$000)**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
	Natural Gas Benefits		Utility NEIs	Electric Capacity				Electric Energy				Non-Electric and Non-Gas			Societal				
	Natural Gas	Natural Gas DRIPE	Utility NEIs	Summer Generation	Capacity DRIPE	Trans	Dist	Reliability	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	Electric Energy DRIPE	Oil	Other Resource	Non Resource	Carbon	NOx	Economic
Non-Income Eligible Residential																			
EnergyWise	\$4,535	\$37	\$0	\$64	\$111	\$83	\$82	\$6	\$51	\$58	\$52	\$45	\$39	\$0	\$56	\$3,165	\$2,809	\$343	\$9,606
Energy Star® HVAC	\$4,098	\$46	\$0	\$8	\$22	\$11	\$11	\$1	-\$8	-\$7	\$5	\$4	-\$2	\$0	\$210	\$620	\$3,072	\$321	\$3,408
EnergyWise Multifamily	\$1,392	\$15	\$0	\$8	\$18	\$11	\$11	\$1	\$1	\$1	\$6	\$5	\$3	\$0	\$47	\$4,343	\$980	\$106	\$2,670
Home Energy Reports	\$725	\$25	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$898	\$64	\$515
Residential New Construction	\$600	\$6	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8	\$612	\$395	\$46	\$124
Non-Income Eligible Residential SUBTOTAL	\$11,350	\$129	\$0	\$80	\$152	\$104	\$103	\$8	\$45	\$52	\$63	\$55	\$40	\$0	\$321	\$8,740	\$8,155	\$880	\$16,323
Income Eligible Residential																			
Single Family - Income Eligible Services	\$2,115	\$20	\$109	\$27	\$54	\$36	\$36	\$3	\$32	\$38	\$21	\$19	\$26	\$0	\$0	\$10,141	\$1,441	\$160	\$6,939
Income Eligible Multifamily	\$2,611	\$26	\$87	\$5	\$15	\$6	\$6	\$1	\$1	\$0	\$3	\$3	\$2	\$0	\$57	\$14,605	\$1,759	\$198	\$5,028
Income Eligible Residential SUBTOTAL	\$4,726	\$46	\$196	\$32	\$69	\$42	\$42	\$3	\$33	\$38	\$25	\$21	\$29	\$0	\$57	\$24,746	\$3,200	\$358	\$11,967
Commercial & Industrial																			
Large Commercial New Construction	\$6,307	\$73	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$52	\$8,046	\$5,743	\$617	\$4,977
Large Commercial Retrofit	\$11,508	\$231	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$43	\$18,981	\$11,078	\$1,054	\$13,070
Small Business Direct Install	\$780	\$10	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$321	\$0	\$672	\$72	\$685
Commercial & Industrial Multifamily	\$1,178	\$16	\$0	\$5	\$14	\$6	\$6	\$1	\$1	\$0	\$3	\$3	\$2	\$0	\$28	\$4,377	\$970	\$103	\$1,990
Commercial & Industrial SUBTOTAL	\$19,773	\$330	\$0	\$5	\$14	\$6	\$6	\$1	\$1	\$0	\$3	\$3	\$2	\$0	\$444	\$31,404	\$18,464	\$1,846	\$20,722
Grand Total	\$35,849	\$505	\$196	\$117	\$235	\$153	\$151	\$12	\$78	\$90	\$91	\$79	\$71	\$0	\$822	\$64,890	\$29,819	\$3,084	\$49,012
Included in PIM? (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N
Percent Application in PIM	100%	100%	100%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	0%	0%	0%	0%
Category	Gas Utility System Benefits	Gas Utility System Benefits	Gas Utility System Benefits	Resource Benefits	Resource Benefits	Resource Benefits	Resource Benefits	NA	NA	NA	NA								

Notes
From 2022 Benefit-Cost Model, reflects benefits in Table G-6

**Table G-8B - EERMC 1-2-2
National Grid
2022 Gas PIM Costs**

	(1)	(2)	(3)
	Costs (\$)		
	Eligible Spending Budget from Table G-3	Regulatory Costs	Total Costs for PIM Calculations
Non-Income Eligible Residential SUBTOTAL	\$16,473,090	\$447,142	\$16,920,232
Income Eligible Residential SUBTOTAL	\$10,252,781	\$447,142	\$10,699,923
Commercial & Industrial SUBTOTAL	\$10,189,990	\$447,142	\$10,637,132
Included in PIM? (Y/N)	Y	Y	Y

Notes

Source is Table G-2 and G-3. Regulatory costs allocated equally to each sector.

Table G-8C - EERMC 1-2-2
National Grid
2022 Gas PIM and SQA

Sector PI = min(Payout Cap(i), [Actual Net Benefits* Design Payout Rate(g) * Payout Rate Adjustment(i)])

Sector	Planned Eligible Benefits		Planned Eligible Costs	Planned Eligible Net Benefits (4)	Design Performance Achievement	Design Performance Payout	Design Payout Rate	Design Payout Rate Thresholds	Payout Rate Adjustments	Payout Cap	Service Quality Metric
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
	100% Gas Utility System Benefits	50% Resource Benefits	Eligible Spending Budget + Regulatory Costs	=(a)+(b)-(c)	Net benefits at which design incentive pool is achieved	Set by PUC	=(f)/(e)	Achievement levels at which the Payout Rate Adjustments in (i) will be applied—Set by PUC	Factor to adjust Design Payout Rate for if final program achievement fall within the ranges in (h)—Set by PUC	=1.25*(f)	Yes if (d) ≤ 0; No if (d) >0
										Cap on sector payout regardless of achievement in sector	See Service Quality Table
Non-Income Eligible Residential	\$11,479,087	\$511,159	\$16,920,232	-\$4,929,986	\$2,000,000	\$500,000	25%	a. Achievement < 25% b. 25% ≤ Achievement < 50% c. 50% ≤ Achievement < 75% d. 75% ≤ Achievement • Spending > Planned Eligible Costs	a. 0 b. Achievement/100 + 0.1 c. Achievement/100 + 0.25 d. 0 • See Boundary Rules	\$625,000	Yes
Income Eligible Residential	\$4,967,803	\$195,759	\$10,699,923	-\$5,536,361	\$2,000,000	\$500,000	25%			\$625,000	Yes
Commercial & Industrial	\$20,102,395	\$242,674	\$10,637,132	\$9,707,936	\$9,707,936	\$1,700,000	18%			\$2,125,000	No

Sector SQA = Maximum Service Adjustment(e) * Service Achievement Scaling Factor(g)

	Planned Eligible Benefits		Planned Eligible Costs	Design Service Achievement	Maximum Service Adjustment	Service Adjustment Thresholds	Service Achievement Scaling Factors	Achievement Cost Adjustment
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	100% Gas Utility System Benefits	50% Resource Benefits	Eligible Spending Budget + Regulatory Costs	=(a)+(b)	Maximum downward adjustment to earned incentive	Adjusted Achievement levels at which the Service Adjustments in (e) will be applied; adjustment is calculated in (h)	Factor to scale program achievement that fall within the ranges in (f)	Actual-cost-based adjustment factor applied to achievement. Result is if the difference between achievement and cost variances are greater than 5%, the Actual Achievement will be adjusted for use in
Non-Income Eligible Residential	\$11,479,087	\$511,159	\$16,920,232	\$11,990,246	\$386,750	a. Adjusted Achievement < 65% b. 65% ≤ Adjusted Achievement < 95% c. 95% ≤ Adjusted Achievement	a. 0 b. (95-Adjusted Achievement)/30 c. 0	Performance Variance = "Actual Benefits" / "Design Achievement" - "Spending" / "Planned Eligible Cost" If the absolute value (Performance Variance) ≤ 0.05, Then Adjusted Achievement = Actual Achievement Else Adjusted Achievement = Actual Achievement * (1+ Performance Variance)
Income Eligible Residential	\$4,967,803	\$195,759	\$10,699,923	\$5,163,563	\$276,250			
Commercial & Industrial	\$20,102,395	\$242,674	\$10,637,132	N/A	N/A			

**Table G-9 - EERMC 1-2-2
National Grid
Revolving Loan Fund Projections**

Large C&I Revolving Loan Fund

(1)	Total Loan Fund Deposits Through 2021	\$ 3,590,440
(2)	Current Loan Fund Balance	\$ 2,398,955
(3)	Projected Loans by Year End 2021	\$ 587,000
(4)	Projected Repayments by Year End 2021	\$ 213,986
(5)	Projected Year End Loan Fund Balance 2021	\$ 2,025,941
(6)	2022 Fund Injection	\$ -
(7)	Projected Loan Fund Balance, January 2022	\$ 2,025,941
(8)	Projected Repayments throughout 2022	\$ 402,925
(9)	Estimated Loans in 2022	\$ 1,200,000
(10)	Projected Year End Loan Fund Balance 2022	\$ 1,228,866

Notes

- 1 Funding injections since loan funds began. Net of any adjustments.
- 2 Current Loan Fund Balance is through July 2021
- 3 Projected Loans by Year End 2021 is estimated based on current commitments
Projected Repayments by Year End 2021 is estimated based on projected loans
- 4 by year end and repayment schedules
- 5 Equal to (2) - (3) + (4)
- 6 Fund Injection, as budgeted on G-2
- 7 Equal to (5) + (6)
- 8 Assumption based on average repayments over 12 months; repayments accumulate over time and may vary widely.

Table G-10 - EERMC 1-2-2
National Grid
Rhode Island Gas Energy Efficiency 2007 - 2022
\$(000)

Gas	2007 ⁽⁴⁾	2008	2009	2010	2011 ⁽⁵⁾	2012	2013 ⁽⁶⁾	2014	2015	2016	2017	2018	2019	2020 ⁽⁷⁾	2021 ⁽⁸⁾	2022 ⁽⁸⁾
Energy Efficiency Budget (\$Million) ⁽¹⁾	-	\$7.3	\$7.6	\$4.8	\$7.3	\$13.7	\$19.5	\$23.5	\$24.5	\$27.7	\$29.7	\$28.1	\$31.6	\$34.3	\$35.0	\$40.2
Spending Budget (\$Million) ⁽²⁾	-	\$6.6	\$6.1	\$4.5	\$6.2	\$12.9	\$17.9	\$21.8	\$22.4	\$25.0	\$27.8	\$26.2	\$29.2	\$31.6	\$32.4	\$36.9
Actual Expenditures (\$Million) ⁽³⁾	-	\$7.4	\$6.3	\$5.5	\$4.9	\$13.3	\$19.6	\$21.5	\$21.5	\$24.6	\$29.1	\$28.8	\$29.5	\$24.6		
Incentive Percentage ⁽¹²⁾	-	4.4%	4.4%	4.4%	4.4%	4.4%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	NA	NA
Target Incentive	-	\$288,734	\$266,980	\$199,743	\$274,460	\$570,382	\$898,285	\$1,089,700	\$1,119,800	\$1,251,654	\$1,387,550	\$1,309,076	\$1,460,570	\$1,578,601	\$1,700,000	\$1,700,000
Earned Incentive	-	\$288,734	\$262,121	\$231,310	\$239,863	\$586,036	\$968,229	\$1,362,108	\$1,387,079	\$1,496,869	\$1,633,531	\$1,541,255	\$1,580,119	\$347,732		
Annual MMBtu Energy Savings Goal Achieved (%)		109%	139%	127%	117%	99%	109%	124%	111%	106%	113%	120%	104%	71%		
System Benefits Charge (\$/therm) - all non-exempt customers ⁽¹¹⁾	\$0.0071	\$0.0107	\$0.0150	\$0.0150	\$0.0411	\$0.0384	\$0.0417	-	-	-	-	-	-	-	-	-
Residential System Benefits Charge (\$/therm)	-	-	-	-	-	-	-	\$0.0600	\$0.0781	\$0.0748	\$0.0888	\$0.0869	\$0.0715	\$0.1011	\$0.0871	\$0.1304
C&I System Benefits Charge (\$/therm)	-	-	-	-	-	-	-	\$0.0492	\$0.0637	\$0.0487	\$0.0726	\$0.0671	\$0.0420	\$0.0704	\$0.0596	\$0.0925
Annual Cost to 846 Therm/year Residential Customer w/o tax ⁽⁹⁾	\$6.04	\$9.05	\$12.69	\$12.69	\$18.28	\$32.49	\$35.28	\$50.76	\$66.07	\$63.28	\$75.12	\$73.52	\$60.49	\$85.53	\$73.69	\$110.32
Annual Cost to 846 Therm/year Residential Customer w/tax ⁽¹⁰⁾	\$6.23	\$9.33	\$13.08	\$13.08	\$18.85	\$33.49	\$36.37	\$52.33	\$68.11	\$65.24	\$77.44	\$75.79	\$62.36	\$88.18	\$75.97	\$113.73

Notes:

- (1) Energy Efficiency Budget includes total expenditures and commitments. Includes all demand side management program-related expenses, including rebates, administration and general expenses, evaluation, commitments for future years and Company incentive.
- (2) Prior to 2017, Spending Budget Eligible for Shareholder Incentive includes: Implementation, Administration, General, and Evaluation Expenses; excludes EERMC and OER Costs, Commitments, Copays, and Outside Finance Costs. Beginning in 2017, Outside Finance Costs were also included. Beginning in 2018 Pilot expenses were also excluded. Beginning in 2019 ConnectedSolutions expenses and assessment were also excluded.
- (3) Actual Expenditures is actual spend during calendar year. Includes expenditures and commitments. Includes all demand side management program-related expenses, including rebates, administration and general expenses, evaluation, commitments for future years and Company incentive.
- (4) Gas programs began during July 2007 and were not reported on separately that year since programs were still in development. The 2007 gas programs are included in 2008 reporting. Systems Benefit Charge shown for 2007 is the weighted average of \$0.063 per decatherm from January 1, 2007 - June 30, 2007 and \$0.107 per decatherm from July 1, 2007 through December 31, 2008.
- (5) On July 25, 2011 the Commission ordered that National Grid could increase the gas System Benefits Charge from \$0.15 to \$0.411 per decatherm for the period of August 1, 2011 through December 31, 2011. Annual cost represents 7 months usage (632 therms) at \$0.015 per therm and 5 months usage (214 therms) at \$0.0411 per therm.
- (6) In the Company's gas and electric rate cases in docket 4323, the PUC approved the uncollectibles gross-up in the electric EE Program Charge effective February 1, 2013, and a new rate applicable to the gross-up of the gas EE Program Charge, effective February 1, 2013.
- (7) 2021 values are planned.
- (8) 2022 values are proposed.
- (9) Reflects the annual cost excluding Gross Earnings Tax.
- (10) Reflects the annual cost including Gross Earnings Tax.
- (11) The Gas EE Program Charge was uniform for all customers until 2014, at which time the Company proposed and the PUC approved individual factors for the residential and C&I sectors.
- (12) Incentive percentage not applicable for 2022 due to new performance incentive mechanism developed for the 2022 Annual Plan. See Section 11 of the Main Text of the 2022 Annual Plan for additional details.

EERMC 1-3
Portfolio-Level Planning

Request:

Please provide Electric and Gas BCR models and updated Attachments 5 and 6 (Electric Tables and Gas Tables) reflecting program activity if 10% less budget were allocated to each program.

Response:

Please find attached to this response Attachment EERMC 1-3-1 (updated Attachment 5 tables) and Attachment EERMC 1-3-2 (updated Attachment 6 tables). Excel versions of the Electric and Gas BCR models are also being provided (Attachment EERMC 1-3-3, Electric BCR model, Attachment EERMC 1-3-4, Gas BCR model).

For the purposes of simplifying this analysis, the Company decided to apply proportional decreases across all programs, except as noted below. Please see the assumptions made by the Company below:

1. A multiplier of 0.9 has been applied to all budgets.¹
2. A multiplier of 0.9 has been applied to all quantities/participants.

¹ With the exception of the Rhode Island Infrastructure Bank Budget. This budget is based on statute and does not change.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5189
In Re: 2022 Annual Energy Efficiency Plan
Responses to EERMC's First Set of Data Requests
Issued on October 26, 2021

Attachments EERMC 1-3-3 & EERMC 1-3-4

Please refer to the Excel versions of Attachments EERMC 1-3-3 and EERMC 1-3-4.

**Table E-1 - EERMC 1-3-1
National Grid
Electric DSM Funding Sources in 2022 by Sector
\$(000)**

	Income Eligible Residential	<u>Projections by Sector</u> Non-Income Eligible Residential	Commercial & Industrial	Total
(1) Projected Budget (from E-2):	\$15,387.0	\$32,854.0	\$63,172.0	\$111,412.9
Sources of Other Funding:				
(2) Projected DSM Commitments at Year-End 2021:	\$0.0	\$0.0	\$0.0	\$0.0
(3) Projected Year-End 2021 Fund Balance and Interest:	\$0.0	(\$7,628.9)	\$12,579.2	\$4,950.3
(4) Projected FCM Net Revenue from ISO-NE:	\$482.0	\$5,723.2	\$8,130.1	\$14,335.3
(5) Total Other Funding:	\$482.0	(\$1,905.7)	\$20,709.3	\$19,285.5
(6) Customer Funding Required:	\$14,905.0	\$34,759.7	\$42,462.7	\$92,127.4
(7) Forecasted kWh Sales:	246,778,762	2,930,118,727	4,162,361,309	7,339,258,798
(8) Energy Efficiency Program charge per kWh, excluding uncollectible recovery:				\$0.01255
(9) Proposed SRP Opex Factor per kWh, excluding uncollectible recovery:				<u>\$0.00000</u>
(10) Total Proposed Energy Efficiency Charge per kWh, excluding uncollectible recovery:				\$0.01255
(11) Currently Effective Uncollectible Rate				1.30%
(12) Proposed Energy Efficiency Program Charge per kWh, including Uncollectible Recovery:				\$0.01271
(13) Currently Effective Energy Efficiency Program Charge per kwh				<u>\$0.01113</u>
(14) Proposed Adjustment to Reflect Fully Reconciling Funding Mechanism				\$0.00158

Notes:

- (1) Projected Budget from E-2 includes OER and EERMC costs allocated to each sector based on forecasted sales.
- (2) DSM Commitments are projects that are under construction with anticipated completion in 2022.
- (3) Fund balance projections include projected revenue and spend through year end with Income Eligible sector set to \$0 through projected subsidization from other sectors, minus commitments which are illustrated separately on line (2). The Company proposes to refile this table with updated Fund Balance projections on November 17, 2021 as proposed in Section 10 of the Plan's Main Text. #N/A
- (4) The total projection of FCM revenue is allocated by kWh sales to each sector. FCM Revenue includes an estimated \$250,230 penalty. See prefiled testimony for additional details.
- (5) Line (2) + Line (3) + Line (4)
- (6) Line (1) - Line (5)
- (7) Per Company Forecast
- (8) Line (6) ÷ Line (7), truncated to 5 decimal places
- (9) Truncated to 5 decimal places
- (11) Proposed SRP Opex Factor is \$0.00000.
- (10) Line (8) + Line (9)
- (11) Uncollectible rate approved in Docket No 4770.
- (12) Line (10) ÷ (1-Line (11)), truncated to 5 decimal places
- (13) Currently Effective EE Charge includes System Reliability Factor and uncollectible recovery.
- (14) Line (12) - Line (13)

**Table E-2 - EERMC 1-3-1
National Grid
2022 Electric Energy Efficiency Program Budget (\$000)**

	Program Planning & Administration	Marketing	Cost of services and product rebates/incentives provided to customers	Sales, Technical Assistance & Training	Evaluation & Market Research	Total Performance Incentive	Grand Total
Non-Income Eligible Residential							
Residential New Construction	\$82.5	\$21.2	\$720.8	\$453.8	\$71.9		\$1,350.2
ENERGY STAR® HVAC	\$90.4	\$251.7	\$3,361.2	\$437.3	\$236.0		\$4,376.5
EnergyWise	\$362.8	\$336.3	\$11,960.7	\$1,183.8	\$253.8		\$14,097.3
EnergyWise Multifamily	\$90.7	\$66.9	\$2,352.4	\$366.3	\$36.4		\$2,912.7
Residential Consumer Products	\$75.3	\$417.9	\$1,552.2	\$450.7	\$20.0		\$2,516.1
Home Energy Reports	\$50.3	\$11.8	\$0.0	\$2,296.3	\$18.7		\$2,377.2
Residential ConnectedSolutions	\$34.4	\$10.2	\$1,220.5	\$331.6	\$33.7		\$1,630.3
Energy Efficiency Education Programs	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		\$0.0
Residential Pilots	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		\$0.0
Community Based Initiatives - Residential	\$30.4	\$112.6	\$86.6	\$0.0	\$0.0		\$229.6
Comprehensive Marketing - Residential	\$1.1	\$222.0	\$0.0	\$0.0	\$0.0		\$223.1
Residential Performance Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Subtotal - Non-Income Eligible Residential	\$817.9	\$1,450.6	\$21,254.4	\$5,519.7	\$670.4	\$0.0	\$29,713.1
Income Eligible Residential							
Single Family - Income Eligible Services	\$303.3	\$121.5	\$9,680.4	\$1,769.4	\$65.2		\$11,939.9
Income Eligible Multifamily	\$102.7	\$12.7	\$2,721.6	\$309.7	\$35.8		\$3,182.5
Income Eligible Performance Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Subtotal - Income Eligible Residential	\$406.0	\$134.3	\$12,402.0	\$2,079.1	\$101.0	\$0.0	\$15,122.4
Commercial & Industrial							
Large Commercial New Construction	\$203.8	\$276.1	\$8,590.8	\$1,747.9	\$389.6		\$11,208.2
Large Commercial Retrofit	\$703.0	\$215.6	\$20,578.9	\$5,044.52	\$734.6		\$27,276.6
Small Business Direct Install	\$211.5	\$219.6	\$7,819.7	\$277.8	\$230.4		\$8,759.1
Commercial ConnectedSolutions	\$86.9	\$6.2	\$3,692.3	\$162.6	\$0.0		\$3,948.0
Commercial Pilots	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		\$0.0
Community Based Initiatives - C&I	\$10.1	\$37.5	\$28.9	\$0.0	\$0.0		\$76.5
Finance Costs	\$0.0	\$0.0	\$1,800.0	\$0.0	\$0.0		\$1,800.0
Commercial Workforce Development	\$0.0	\$0.0	\$0.0	\$141.8	\$0.0		\$141.8
Commercial & Industrial Performance Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$5,500.0	\$5,500.0
Subtotal - Commercial & Industrial	\$1,215.3	\$754.9	\$42,510.6	\$7,374.6	\$1,354.6	\$5,500.0	\$58,710.1
Regulatory							
OER	\$1,720.4	\$0.0	\$0.0	\$0.0	\$0.0		\$1,720.4
EERMC	\$1,146.9	\$0.0	\$0.0	\$0.0	\$0.0		\$1,146.9
Rhode Island Infrastructure Bank	\$0.0	\$0.0	\$5,000.0	\$0.0	\$0.0		\$5,000.0
Subtotal - Regulatory	\$2,867.3	\$0.0	\$5,000.0	\$0.0	\$0.0	\$0.0	\$7,867.3
Grand Total	\$5,306.5	\$2,339.8	\$81,167.0	\$14,973.4	\$2,126.1	\$5,500.0	\$111,412.9

Notes:

- (1) 2022 Large Commercial Retrofit Commitments (\$000):
- (2) For more information on Finance Costs, please refer to Attachment 2, Section 9.
- (3) OER and EERMC total 3.0% of customers' EE Program Charge collected on Table E-1, minus 3%.
- (4) Finance Costs are detailed in Table E-9. Finance Costs include an injection of \$2M into the Large C&I Revolving Loan Fund. Without this injection the Large C&I Revolving Loan Fund is projected to be negative by the end of 2022.
- (5) Demonstrations and Assessments budgets are included in specific program level budgets listed above. More information on Demonstration and Assessments descriptions, budgets, and which program level budget they are included in can be found in Attachment 8.
- (6) Based on the state's System Reliability and Least Cost procurement statute (amended in 2021), funds transferred to the Rhode Island Infrastructure Bank are now classified under Regulatory costs.

**Table E-3 - EERMC 1-3-1
National Grid
Derivation of the 2022 Spending and Implementation Budgets (\$000)**

	Proposed 2022 Budget From E-2	Commitments	Regulatory Costs	Performance Incentive	Eligible Sector Spending Budget for Performance Incentive on E-8B	Implementation Expenses for Cost- Effectiveness on E-5
Non-Income Eligible Residential						
Residential New Construction	\$1,350.2					\$1,350.2
ENERGY STAR® HVAC	\$4,376.5					\$4,376.5
EnergyWise	\$14,097.3					\$14,097.3
EnergyWise Multifamily	\$2,912.7					\$2,912.7
Residential Consumer Products	\$2,516.1					\$2,516.1
Home Energy Reports	\$2,377.2					\$2,377.2
Residential ConnectedSolutions	\$1,630.3					\$1,630.3
Energy Efficiency Education Programs	\$0.0					\$0.0
Residential Pilots	\$0.0					\$0.0
Community Based Initiatives - Residential	\$229.6					\$229.6
Comprehensive Marketing - Residential	\$223.1					\$223.1
Residential Performance Incentive	\$0.0			\$0.0		\$0.0
Subtotal - Non-Income Eligible Residential	\$29,713.1	\$0.0	\$0.0	\$0.0	\$28,057.9	\$29,713.1
Income Eligible Residential						
Single Family - Income Eligible Services	\$11,939.9					\$11,939.9
Income Eligible Multifamily	\$3,182.5					\$3,182.5
Income Eligible Performance Incentive	\$0.0			\$0.0		\$0.0
Subtotal - Income Eligible Residential	\$15,122.4	\$0.0	\$0.0	\$0.0	\$15,122.4	\$15,122.4
Commercial & Industrial						
Large Commercial New Construction	\$11,208.2	\$0.0				\$11,208.2
Large Commercial Retrofit	\$27,276.6	\$0.0				\$27,276.6
Small Business Direct Install	\$8,759.1	\$0.0				\$8,759.1
Commercial ConnectedSolutions	\$3,948.0					\$3,948.0
Commercial Pilots	\$0.0					\$0.0
Community Based Initiatives - C&I	\$76.5					\$76.5
Finance Costs	\$1,800.0					\$1,800.0
Commercial Workforce Development	\$141.8					\$141.8
Commercial & Industrial Performance Incentive	\$5,500.0			\$5,500.0		\$0.0
Subtotal - Commercial & Industrial	\$58,710.1	\$0.0	\$0.0	\$5,500.0	\$49,231.1	\$53,210.1
Regulatory						
OER	\$1,720.4		\$1,720.4			\$1,720.4
EERMC	\$1,146.9		\$1,146.9			\$1,146.9
Rhode Island Infrastructure Bank	\$5,000.0		\$5,000.0			\$5,000.0
Subtotal - Regulatory	\$7,867.3	\$0.0	\$7,867.3	\$0.0	\$0.0	\$7,867.3
Grand Total	\$111,412.9	\$0.0	\$7,867.3	\$5,500.0	\$92,411.4	\$105,912.9

Notes:

- (1) Eligible Sector Spending Budget = Total Budget from E-2 minus commitments, regulatory costs, pilots, assessments, Residential ConnectedSolutions, Commercial ConnectedSolutions, Performance Incentive
- (2) Eligible Sector Spending Budget does not include assessments, see Attachment 8 for assessments budgets.
- (3) Implementation Expenses = Total Budget from E-2 minus commitments and Performance Incentive.

**Table E-4 - EERMC 1-3-1
National Grid
Proposed 2022 Budget Compared to Approved 2021 Budget (\$000)**

	Proposed Implementation Budget 2022	Approved Implementation Budget 2021	Difference
Non-Income Eligible Residential			
Residential New Construction	\$1,350.2	\$1,611.3	-\$261.1
ENERGY STAR® HVAC	\$4,376.5	\$3,487.8	\$888.7
EnergyWise	\$14,097.3	\$15,692.2	-\$1,594.8
EnergyWise Multifamily	\$2,912.7	\$2,804.3	\$108.4
ENERGY STAR® Lighting	\$0.0	\$5,274.8	-\$5,274.8
Residential Consumer Products	\$2,516.1	\$2,681.2	-\$165.2
Home Energy Reports	\$2,377.2	\$2,641.7	-\$264.5
Residential ConnectedSolutions	\$1,630.3	\$1,920.5	-\$290.2
Energy Efficiency Education Programs	\$0.0	\$40.0	-\$40.0
Residential Pilots	\$0.0	\$0.0	\$0.0
Community Based Initiatives - Residential	\$229.6	\$226.2	\$3.4
Comprehensive Marketing - Residential	\$223.1	\$332.7	-\$109.6
Subtotal - Non-Income Eligible Residential	\$29,713.1	\$36,712.7	-\$6,999.6
Income Eligible Residential			
Single Family - Income Eligible Services	\$11,939.9	\$12,846.1	-\$906.2
Income Eligible Multifamily	\$3,182.5	\$3,549.0	-\$366.5
Subtotal - Income Eligible Residential	\$15,122.4	\$16,395.1	-\$1,272.6
Commercial & Industrial			
Large Commercial New Construction	\$11,208.2	\$8,188.2	\$3,020.0
Large Commercial Retrofit	\$27,276.6	\$31,565.2	-\$4,288.6
Small Business Direct Install	\$8,759.1	\$8,883.6	-\$124.5
Commercial ConnectedSolutions	\$3,948.0	\$2,990.1	\$957.9
Community Based Initiatives - C&I	\$76.5	\$74.5	\$1.9
Commercial Pilots	\$0.0	\$0.0	\$0.0
Finance Costs	\$1,800.0	\$5,000.0	-\$3,200.0
Commercial Workforce Development	\$141.8	\$0.0	\$141.8
Subtotal Commercial & Industrial	\$53,210.1	\$56,701.6	-\$3,491.5
Regulatory			
EERMC	\$1,146.9	\$738.5	\$408.4
OER	\$1,720.4	\$738.5	\$981.9
Rhode Island Infrastructure Bank	\$5,000.0	\$0.0	\$5,000.0
Subtotal Regulatory	\$7,867.3	\$1,477.0	\$6,390.3
TOTAL IMPLEMENTATION BUDGET	\$105,912.9	\$111,286.3	-\$5,373.4
OTHER EXPENSE ITEMS			
Commitments	\$0.0	\$0.0	\$0.0
Company Incentive	\$5,500.0	\$5,500.0	\$0.0
Subtotal - Other Expense Items	\$5,500.0	\$5,500.0	\$0.0
TOTAL BUDGET	\$111,412.9	\$116,786.3	-\$5,373.4

Notes:

- (1) Program Implementation Budget excludes Commitments, Company Incentive; derived on Table E-3
- (2) Total Budget includes Implementation, Commitments; illustrated on Table E-3
- (3) The Energy Star® Lighting program year-over-year decrease is due to the phase out of the program in 2022.
- (4) The increased budget for the Large Commercial and Industrial New Construction program can be attributed to a roughly \$3,800,000 increase in incentives for HVAC, controls, industrial process, and other non-lighting measures, plus associated program administration costs to implement a more complex measure mix.
- (5) The Large Commercial Retrofit program decreased primarily due to roughly a \$2,600,000 reduction in lighting incentives due to lower anticipated volume as the market becomes increasingly saturated. The CHP budget also decreased approximately \$500,000 because there was a CHP retrofit in the 2021 plan. This has been partially offset by increased non-lighting incentive budgets and associated program administration costs to implement a more complex measure mix.
- (6) The increase in the 2022 Commercial and Industrial ConnectedSolutions program budget can be attributed to the higher participation in the Daily Dispatch demand response offering. In total, the customer incentive payments represent approximately 98% of the cost associated with this measure.
- (7) The Finance Cost decline is driven by a reallocation of \$5M in RIIB from this line to the RIIB line under regulatory due to the updated the Least Cost Procurement statute (amended in 2021).
- (8) The increase in allocation of funds to the OER is made consistent with the state's System Reliability and Least Cost procurement statute (amended in 2021), which provides that the Commission shall allocate an amount not to exceed three percent (3.0%) from authorized demand-side management gas and electric funds authorized.
- (9) The Rhode Island Infrastructure Bank addition is driven by a reallocation of \$5M from the Finance Cost Line to the Rhode Island Infrastructure Bank line under the regulatory sector to comply with the Least Cost Procurement statute (amended in 2021).

**Table E-5 - Primary - EERMC 1-3-1
National Grid
Calculation of 2022 Program Year Cost-Effectiveness
All Dollar Values in (\$000)**

	RI Test Benefit/ Cost ¹	Total Benefit	Program Implementation Expenses ²	Customer Contribution	Performance Incentive	¢/Lifetime kWh
Non-Income Eligible Residential						
Residential New Construction	2.10	\$3,875.4	\$1,350.2	\$498.3		13.4
ENERGY STAR® HVAC	2.18	\$13,176.7	\$4,376.5	\$1,665.0		8.6
EnergyWise	1.03	\$14,969.6	\$14,097.3	\$478.5		119.7
EnergyWise Multifamily	1.64	\$5,578.1	\$2,912.7	\$478.8		18.1
Home Energy Reports	2.04	\$4,861.3	\$2,377.2	\$0.0		9.8
Residential Consumer Products	2.21	\$8,743.4	\$2,516.1	\$1,446.1		9.3
Residential ConnectedSolutions	1.59	\$2,597.4	\$1,630.3	\$0.0		N/A
Energy Efficiency Education Programs			\$0.0			
Residential Pilots			\$0.0			
Community Based Initiatives - Residential			\$229.6			
Comprehensive Marketing - Residential			\$223.1			
Non-Income Eligible Residential SUBTOTAL	1.57	\$53,801.8	\$29,713.1	\$4,566.6	\$0.0	18.9
Income Eligible Residential						
Single Family - Income Eligible Services	1.94	\$23,182.8	\$11,939.9	\$0.0		34.5
Income Eligible Multifamily	2.38	\$7,572.5	\$3,182.5	\$0.0		14.4
Income Eligible Residential SUBTOTAL	2.03	\$30,755.3	\$15,122.4	\$0.0	\$0.0	26.6
Commercial & Industrial						
Large Commercial New Construction	2.90	\$35,211.3	\$11,208.2	\$919.3		6.1
Large Commercial Retrofit	1.94	\$71,690.0	\$27,276.6	\$9,667.8		12.0
Small Business Direct Install	1.12	\$11,753.3	\$8,759.1	\$1,776.7		17.5
Commercial ConnectedSolutions	2.42	\$9,559.1	\$3,948.0	\$0.0		N/A
Commercial Pilots			\$0.0			
Community Based Initiatives - C&I			\$76.5			
Finance Costs			\$1,800.0			
Commercial Workforce Development			\$141.8			
C&I SUBTOTAL	1.80	\$128,213.7	\$53,210.1	\$12,363.8	\$5,500.0	11.6
Regulatory						
OER			\$1,720.4			
EERMC			\$1,146.9			
Rhode Island Infrastructure Bank			\$5,000.0			
Regulatory SUBTOTAL			\$7,867.3			
TOTAL	1.66	\$212,770.8	\$105,912.9	\$16,930.5	\$5,500.0	15.3

Notes:

- (1) RI Test B/C Test = Total Benefits from Table E-6A / Program Implementation Expenses from Table E-3
Also includes effects of free-ridership and spillover.
- (2) For Implementation Expenses derivation, see Table E-3.

**Table E-5 - Secondary - EERMC 1-3-1
National Grid
Calculation of 2022 Program Year Cost-Effectiveness with Economic Benefits Included
All Dollar Values in (\$000)**

	RI Test Benefit/ Cost ¹	Total Benefit	Program Implementation Expenses ²	Customer Contribution	Performance Incentive	¢/Lifetime kWh
Non-Income Eligible Residential						
Residential New Construction	3.12	\$5,765.8	\$1,350.2	\$498.3		13.4
ENERGY STAR® HVAC	3.21	\$19,391.4	\$4,376.5	\$1,665.0		8.6
EnergyWise	1.93	\$28,080.1	\$14,097.3	\$478.5		119.7
EnergyWise Multifamily	2.80	\$9,481.1	\$2,912.7	\$478.8		18.1
Home Energy Reports	3.04	\$7,238.5	\$2,377.2	\$0.0		9.8
Residential Consumer Products	3.17	\$12,567.8	\$2,516.1	\$1,446.1		9.3
Residential ConnectedSolutions	2.42	\$3,950.5	\$1,630.3	\$0.0		N/A
Energy Efficiency Education Programs			\$0.0			
Residential Pilots			\$0.0			
Community Based Initiatives - Residential			\$229.6			
Comprehensive Marketing - Residential			\$223.1			
Non-Income Eligible Residential SUBTOTAL	2.52	\$86,475.1	\$29,713.1	\$4,566.6	\$0.0	18.9
Income Eligible Residential						
Single Family - Income Eligible Services	2.80	\$33,451.1	\$11,939.9	\$0.0		34.5
Income Eligible Multifamily	3.57	\$11,359.7	\$3,182.5	\$0.0		14.4
Income Eligible Residential SUBTOTAL	2.96	\$44,810.8	\$15,122.4	\$0.0	\$0.0	26.6
Commercial & Industrial						
Large Commercial New Construction	5.78	\$70,068.9	\$11,208.2	\$919.3		6.1
Large Commercial Retrofit	6.22	\$229,894.6	\$27,276.6	\$9,667.8		12.0
Small Business Direct Install	2.75	\$29,008.7	\$8,759.1	\$1,776.7		17.5
Commercial ConnectedSolutions	4.61	\$18,205.1	\$3,948.0	\$0.0		N/A
Commercial Pilots			\$0.0			
Community Based Initiatives - C&I			\$76.5			
Finance Costs			\$1,800.0			
Commercial Workforce Development			\$141.8			
C&I SUBTOTAL	4.88	\$347,177.2	\$53,210.1	\$12,363.8	\$5,500.0	11.6
Regulatory						
OER			\$1,720.4			
EERMC			\$1,146.9			
Rhode Island Infrastructure Bank			\$5,000.0			
Regulatory SUBTOTAL			\$7,867.3			
TOTAL	3.73	\$478,463.1	\$105,912.9	\$16,930.5	\$5,500.0	15.3

Notes:

- (1) RI Test B/C Test = Total Benefits from Table E-6A including Economic Benefits / Program Implementation Expenses from Table E-3
Also includes effects of free-ridership and spillover.
- (2) For Implementation Expenses derivation, see Table E-3.

Table E-5A - EERMC 1-3-1
National Grid
Calculation of 2022 Program Year Cost-Effectiveness with TRC Test
All Dollar Values in (\$000)

	TRC Benefit/ Cost ¹	Total Benefit	Program Implementation Expenses ²	Customer Contribution	Performance Incentive	¢/Lifetime kWh
Non-Income Eligible Residential						
Residential New Construction	1.67	\$3,081.5	\$1,350.2	\$498.3		13.4
ENERGY STAR® HVAC	1.60	\$9,670.8	\$4,376.5	\$1,665.0		8.6
EnergyWise	0.78	\$11,311.3	\$14,097.3	\$478.5		119.7
EnergyWise Multifamily	1.37	\$4,633.8	\$2,912.7	\$478.8		18.1
Home Energy Reports	1.38	\$3,277.8	\$2,377.2	\$0.0		9.8
Residential Consumer Products	1.59	\$6,313.1	\$2,516.1	\$1,446.1		9.3
Residential ConnectedSolutions	1.59	\$2,594.2	\$1,630.3	\$0.0		N/A
Energy Efficiency Education Programs			\$0.0			0.0
Residential Pilots			\$0.0			0.0
Community Based Initiatives - Residential			\$229.6			0.0
Comprehensive Marketing - Residential			\$223.1			0.0
Non-Income Eligible Residential SUBTOTAL	1.19	\$40,882.5	\$29,713.1	\$4,566.6	\$0.0	18.9
Income Eligible Residential						
Single Family - Income Eligible Services	1.66	\$19,831.5	\$11,939.9	\$0.0		34.5
Income Eligible Multifamily	2.04	\$6,499.3	\$3,182.5	\$0.0		14.4
Income Eligible Residential SUBTOTAL	1.74	\$26,330.9	\$15,122.4	\$0.0	\$0.0	26.6
Commercial & Industrial						
Large Commercial New Construction	2.23	\$26,994.2	\$11,208.2	\$919.3		6.1
Large Commercial Retrofit	1.53	\$56,688.0	\$27,276.6	\$9,667.8		12.0
Small Business Direct Install	0.83	\$8,722.2	\$8,759.1	\$1,776.7		17.5
Commercial ConnectedSolutions	2.42	\$9,559.1	\$3,948.0			
Commercial Pilots			\$0.0			
Community Based Initiatives - C&I			\$76.5			
Finance Costs			\$1,800.0			
Commercial Workforce Development			\$141.8			
C&I SUBTOTAL	1.43	\$101,963.5	\$53,210.1	\$12,363.8	\$5,500.0	11.6
Regulatory						
OER			\$1,720.4			
EERMC			\$1,146.9			
Rhode Island Infrastructure Bank			\$5,000.0			
Regulatory SUBTOTAL			\$7,867.3			
TOTAL	1.32	\$169,176.9	\$105,912.9	\$16,930.5	\$5,500.0	15.3

(1) TRC B/C Test omits societal benefits that are monetized in the RI Test, including non-embedded emissions (CO2 and Nox), and economic benefits Also includes effects of free-ridership and spillover.
(2) For Implementation Expenses derivation, see Table E-3.

**Table E-6 - EERMC 1-3-1
National Grid
Summary of 2022 Benefits by Program (Energy Efficiency Measures)**

	Benefits (000's)																		
	Total	Total (Economic Excluded)	Capacity					Energy				Non Electric				Societal			
			Summer Generation	Capacity DRIPE	Trans	Dist	Reliability	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	Electric Energy DRIPE	Natural Gas	Oil	Other Resource	Non Resource	Carbon	NOx	Economic
Non-Income Eligible Residential																			
Residential New Construction	\$5,766	\$3,875	\$44	\$38	\$85	\$84	\$0	\$340	\$449	\$132	\$101	\$270	\$0	\$299	\$1,178	\$60	\$769	\$25	\$1,890
ENERGY STAR® HVAC	\$19,391	\$13,177	\$164	\$143	\$321	\$318	\$2	\$2,160	\$2,690	\$199	\$167	\$1,651	\$49	\$1,476	-\$15	\$346	\$3,388	\$118	\$6,215
EnergyWise	\$28,080	\$14,970	\$133	\$146	\$262	\$260	\$2	\$242	\$248	\$161	\$141	\$284	\$0	\$8,085	\$209	\$1,140	\$3,246	\$412	\$13,111
EnergyWise Multifamily	\$9,481	\$5,578	\$85	\$71	\$164	\$162	\$1	\$538	\$670	\$95	\$80	\$418	\$0	\$569	\$43	\$1,738	\$906	\$38	\$3,903
Home Energy Reports	\$7,238	\$4,861	\$186	\$405	\$329	\$326	\$6	\$581	\$478	\$226	\$164	\$576	\$0	\$0	\$0	\$0	\$1,563	\$21	\$2,377
Residential Consumer Products	\$12,568	\$8,743	\$301	\$648	\$677	\$670	\$8	\$812	\$883	\$436	\$439	\$1,347	\$13	\$37	\$37	\$4	\$2,397	\$34	\$3,824
Non-Income Eligible Residential SUBTOTAL	\$82,525	\$51,204	\$913	\$1,451	\$1,837	\$1,820	\$19	\$4,674	\$5,418	\$1,249	\$1,091	\$4,547	\$63	\$10,465	\$1,452	\$3,288	\$12,268	\$648	\$31,320
Income Eligible Residential																			
Single Family - Income Eligible Services	\$33,451	\$23,183	\$247	\$228	\$486	\$482	\$3	\$786	\$869	\$369	\$380	\$720	\$70	\$4,757	\$348	\$10,087	\$3,085	\$266	\$10,268
Income Eligible Multifamily	\$11,360	\$7,572	\$20	\$17	\$39	\$38	\$0	\$718	\$918	\$27	\$23	\$504	\$0	\$578	\$48	\$3,570	\$1,033	\$40	\$3,787
Income Eligible Residential SUBTOTAL	\$44,811	\$30,755	\$268	\$244	\$525	\$520	\$3	\$1,504	\$1,787	\$396	\$403	\$1,224	\$70	\$5,335	\$396	\$13,657	\$4,118	\$306	\$14,056
Commercial & Industrial																			
Large Commercial New Construction	\$70,069	\$35,211	\$1,381	\$1,179	\$2,699	\$2,675	\$15	\$5,120	\$3,008	\$3,257	\$1,977	\$4,351	-\$231	\$0	\$4	\$1,559	\$8,112	\$105	\$34,858
Large Commercial Retrofit	\$229,895	\$71,690	\$2,725	\$5,391	\$6,050	\$5,994	\$68	\$6,472	\$4,659	\$4,446	\$2,788	\$9,720	-\$1,793	\$0	\$32	\$10,135	\$14,931	\$71	\$158,205
Small Business Direct Install	\$29,009	\$11,753	\$235	\$556	\$537	\$532	\$7	\$1,291	\$755	\$956	\$500	\$1,942	-\$363	\$0	\$0	\$1,774	\$3,017	\$14	\$17,255
C&I SUBTOTAL	\$328,972	\$118,655	\$4,340	\$7,125	\$9,287	\$9,201	\$89	\$12,883	\$8,423	\$8,659	\$5,265	\$16,014	-\$2,387	\$0	\$37	\$13,468	\$26,060	\$191	\$210,317
TOTAL	\$456,307	\$200,614	\$5,521	\$8,821	\$11,649	\$11,542	\$111	\$19,061	\$15,628	\$10,304	\$6,759	\$21,785	-\$2,255	\$15,800	\$1,885	\$30,412	\$42,446	\$1,145	\$255,693

**Table E-6A - EERMC 1-3-1
National Grid
Summary of 2022 Impacts by Program (Energy Efficiency Measures)**

	Load Reduction in kW		Electric Energy Savings				Gas Saved		Oil Saved		Propane Saved		Total Net Savings (Electric, Gas, Oil, Propane)	
			MWh		MMBtu		MMBtu		MMBtu		MMBtu		MMBtu	
	Summer	Winter	Annual	Lifetime	Annual	Lifetime	Annual	Lifetime	Annual	Lifetime	Annual	Lifetime	Annual	Lifetime
Non-Income Eligible Residential														
Residential New Construction	67	234	807	13,814	2,755	47,133	-	-	478	11,957	1,193	29,813	4,426	88,903
ENERGY STAR® HVAC	216	957	4,161	70,004	14,197	238,854	356	5,421	4,016	60,664	(29)	(382)	18,540	304,558
EnergyWise	382	456	2,513	12,177	8,573	41,549	-	-	17,115	328,075	207	3,285	25,895	372,909
EnergyWise Multifamily	128	316	1,284	18,755	4,381	63,992	-	-	941	22,809	-	-	5,323	86,801
Home Energy Reports	3,323	5,135	24,167	24,167	82,457	82,457	-	-	-	-	-	-	82,457	82,457
Residential Consumer Products	1,007	743	6,197	42,805	21,145	146,050	75	1,505	77	1,516	23	329	21,320	149,400
Non-Income Eligible Residential SUBTOTAL	5,123	7,842	39,129	181,722	133,509	620,036	431	6,926	22,628	425,021	1,393	33,045	157,961	1,085,028
Income Eligible Residential														
Single Family - Income Eligible Services	432	451	2,980	34,625	10,169	118,141	864	10,429	10,065	193,070	58	1,027	21,156	322,667
Income Eligible Multifamily	44	405	1,397	22,121	4,768	75,477	-	-	1,115	23,324	-	-	5,883	98,800
Income Eligible Residential SUBTOTAL	476	855	4,378	56,746	14,937	193,618	864	10,429	11,180	216,393	58	1,027	27,039	421,468
Commercial & Industrial														
Large Commercial New Construction	1,782	1,329	12,832	197,705	43,782	674,571	(2,131)	(27,704)	-	-	-	-	41,651	646,866
Large Commercial Retrofit	8,271	7,060	40,211	308,456	137,200	1,052,450	(32,927)	(215,844)	-	-	-	-	104,274	836,607
Small Business Direct Install	839	657	9,208	60,239	31,417	205,536	(7,292)	(43,752)	-	-	-	-	24,126	161,784
C&I SUBTOTAL	10,892	9,046	62,251	566,400	212,400	1,932,557	(42,350)	(287,300)	-	-	-	-	170,051	1,645,257
TOTAL	16,491	17,743	105,758	804,868	360,847	2,746,210	(41,055)	(269,945)	33,809	641,414	1,450	34,073	355,051	3,151,752

Notes:
1) Lifetime savings are equal to annual savings multiplied by the expected life of measures expected to be installed in each program.

**Table E-6B - EERMC 1-3-1
National Grid
Summary of 2022 Demand Response Benefits and Savings**

	Benefits (000's)															Load Reduction (MW)	MWh Saved		
	Total	Total (Economic Excluded)	Summer Generation	Capacity				Energy				Non Electric	Societal				Summer	Annual	Lifetime
				Capacity DRIPE	Trans	Dist	Reliability	Winter		Summer			Energy DRIPE	Carbon	Economic				
								Peak	Off Peak	Peak	Off Peak								
Non-Income Eligible Residential																			
Residential Connected	\$3,951	\$2,595	\$214	\$879	\$656	\$650	\$192	\$0	\$0	\$0	\$0	\$0	\$0	\$3	\$1,353	6.6	53.4	53.4	
Commercial & Industrial																			
Commercial Connected	\$18,205	\$9,559	\$581	\$2,386	\$2,886	\$2,860	\$846	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,646	29.2	0.0	0.0	
TOTAL	\$22,156	\$12,154	\$795	\$3,265	\$3,542	\$3,510	\$1,039	\$0	\$0	\$0	\$0	\$0	\$0	\$3	\$9,999	35.8	53.4	53.4	

Table E-7 - EERMC 1-3-1
National Grid
Comparison of 2022 and 2021 Goals and Tracking

	Proposed 2022 Goal		Proposed 2022 Tracking				Approved 2021				Difference			
	Lifetime Electric Energy Savings (MWh)	Active Demand Response (kW)	Annual Electric Energy Savings (MWh)	Annual Passive Summer Demand Savings (kW)	Total Net Lifetime Energy Savings (MMBtu)	Planned Unique Participants	Lifetime Electric Energy Savings (MWh)	Annual Electric Energy Savings (MWh)	Annual Passive Summer Demand Savings (kW)	Active Demand Response (kW)	Lifetime Electric Energy Savings (MWh)	Annual Electric Energy Savings (MWh)	Annual Passive Summer Demand Savings (kW)	Active Demand Response (kW)
Non-Income Eligible Residential														
Residential New Construction	13,814		807	67	88,903	416	18,088	979	66		-4,274	-172	1	
ENERGY STAR® HVAC	70,004		4,161	216	304,558	4,707	51,309	3,181	204		18,695	980	12	
EnergyWise	12,177		2,513	382	372,909	10,800	14,385	2,841	445		-2,208	-328	-63	
EnergyWise Multifamily	18,755		1,284	128	86,801	3,240	16,307	1,240	158		2,448	44	-30	
Home Energy Reports	24,167		24,167	3,323	82,457	290,923	26,852	26,852	3,692		-2,685	-2,685	-369	
ENERGY STAR® Lighting	0		0	0	0	0	26,801	11,533	1,872		-26,801	-11,533	-1,872	
Residential Consumer Products	42,805		6,197	1,007	149,400	31,223	38,130	5,926	1,019		4,675	271	-12	
Residential ConnectedSolutions		6,629				3,760			5,431			0		1,197
Non-Income Eligible Residential SUBTOTAL	181,722	6,629	39,129	5,123	1,085,028	345,069	191,872	52,553	7,455	5,431	-10,150	-13,424	-2,333	1,197
Income Eligible Residential														
Single Family - Income Eligible Services	34,625		2,980	432	322,667	3,225	36,909	3,120	457		-2,284	-139	-26	
Income Eligible Multifamily	22,121		1,397	44	98,800	3,240	22,545	1,554	70		-424	-157	-26	
Income Eligible Residential SUBTOTAL	56,746		4,378	476	421,468	6,465	59,454	4,674	527		-2,708	-296	-51	
Commercial & Industrial														
Large Commercial New Construction	197,705		12,832	1,782	646,866	86	189,441	11,837	1,856		8,265	995	-74	
Large Commercial Retrofit	308,456		40,211	8,271	836,607	2,015	744,562	59,496	11,648		-436,106	-19,285	-3,377	
Small Business Direct Install	60,239		9,208	839	161,784	441	105,134	9,696	1,134		-44,895	-488	-295	
Commercial ConnectedSolutions		29,160				162			33,600					-4,440
C&I SUBTOTAL	566,400	29,160	62,251	10,892	1,645,257	2,704	1,039,136	81,029	14,638	33,600	-472,736	-18,778	-3,746	-4,440
TOTAL	804,868	35,789	105,758	16,491	3,151,752	354,238	1,290,462	138,256	22,621	39,031	-485,594	-32,498	-6,130	-3,243

- Notes:
- (1) Planned 2022 participation takes into account net-to-gross and estimates unique participation by taking into account 2021 unique customer accounts to savings ratios. Therefore the number of planned measures may be more than the estimated participants shown. For measure counts please view the widget tables in Attachments 1 and 2. Table E-7 no longer includes a comparison to the previous year's participation. Due to the way unique participation is calculated it is not possible to compare year-over-year results.
 - (2) There are additional Low Income participants in Residential New Construction.
 - (3) A customer can participate in more than one program, for example, Residential Consumer Products and Home Energy Reports, therefore the population reached can be more than 100%.

Table E-8A - EERM 1-3-1
National Grid
2022 Electric PIM Benefits, Allocations, and Categorization (\$000)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)		
	Summer Generation	Capacity DRIPE	Capacity	Distribution	Reliability	Winter Peak Energy	Winter Off Peak Energy	Energy	Summer Peak Energy	Summer Off Peak Energy	Electric Energy DRIPE	Utility NEIs	Utility NEIs	Natural Gas and DRIPE	Oil and Oil DRIPE	Propane and Water	Non Resource	Carbon	Societal	Economic
Non-Income Eligible Residential																				
Residential New Construction	\$44	\$38	\$85	\$84	\$0	\$340	\$449	\$132	\$101	\$270	\$0	\$0	\$299	\$1,178	\$60	\$769	\$25	\$1,890		
ENERGY STAR® HVAC	\$164	\$143	\$321	\$318	\$2	\$2,160	\$2,690	\$199	\$167	\$1,651	\$0	\$49	\$1,476	-\$15	\$346	\$3,388	\$118	\$6,215		
EnergyWise	\$133	\$146	\$262	\$260	\$2	\$242	\$248	\$161	\$141	\$284	\$0	\$0	\$8,085	\$209	\$1,140	\$3,246	\$412	\$13,111		
EnergyWise Multifamily	\$85	\$71	\$164	\$162	\$1	\$538	\$670	\$95	\$80	\$418	\$0	\$0	\$569	\$43	\$1,738	\$906	\$38	\$3,903		
Home Energy Reports	\$186	\$405	\$329	\$326	\$6	\$581	\$478	\$226	\$164	\$576	\$0	\$0	\$0	\$0	\$0	\$1,563	\$21	\$2,377		
Residential Consumer Products	\$301	\$648	\$677	\$670	\$8	\$812	\$883	\$436	\$439	\$1,347	\$0	\$13	\$37	\$37	\$4	\$2,397	\$24	\$3,824		
Income Eligible Residential SUBTOTAL	\$913	\$1,451	\$1,837	\$1,820	\$19	\$4,674	\$5,418	\$1,249	\$1,091	\$4,547	\$0	\$63	\$10,465	\$1,452	\$3,288	\$12,268	\$648	\$31,320		
Income Eligible Residential																				
Single Family - Income Eligible Services	\$247	\$228	\$486	\$482	\$3	\$786	\$869	\$369	\$380	\$720	\$273	\$70	\$4,757	\$348	\$9,814	\$3,085	\$266	\$10,268		
Income Eligible Multifamily	\$20	\$17	\$39	\$38	\$0	\$718	\$918	\$27	\$23	\$504	\$341	\$0	\$578	\$48	\$3,229	\$1,033	\$40	\$3,787		
Income Eligible Residential SUBTOTAL	\$268	\$244	\$525	\$520	\$3	\$1,504	\$1,787	\$396	\$403	\$1,224	\$614	\$70	\$5,335	\$396	\$13,043	\$4,118	\$306	\$14,056		
Commercial & Industrial																				
Large Commercial New Construction	\$1,381	\$1,179	\$2,699	\$2,675	\$15	\$5,120	\$3,008	\$3,257	\$1,977	\$4,251	\$0	-\$231	\$0	\$4	\$1,559	\$8,112	\$105	\$34,858		
Large Commercial Retrofit	\$2,725	\$5,391	\$6,050	\$5,994	\$68	\$6,472	\$4,659	\$4,446	\$2,788	\$9,720	\$0	-\$1,793	\$0	\$32	\$10,135	\$14,931	\$71	\$158,205		
Small Business Direct Install	\$235	\$556	\$537	\$532	\$7	\$1,291	\$755	\$956	\$500	\$1,942	\$0	-\$363	\$0	\$0	\$1,774	\$3,017	\$14	\$17,255		
C&I SUBTOTAL	\$4,340	\$7,125	\$9,287	\$9,201	\$89	\$12,883	\$8,423	\$8,659	\$5,265	\$16,014	\$0	-\$2,387	\$0	\$37	\$13,468	\$26,060	\$191	\$210,317		
Included in PIM? (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N		
Percent Application in PIM	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	50%	50%	50%	0%	0%	0%	0%	
Category	Electric Utility System Benefits	Resource Benefits	Resource Benefits	Resource Benefits	NA	NA	NA	NA												

Notes
From 2022 Benefit-Cost Model, reflects benefits in Table E-6

**Table E-8B - EERMC 1-3-1
National Grid
2022 Electric PIM Costs**

	(1)	(2)	(3)
	Costs (\$)		
	Eligible Spending Budget from Table E-3	Regulatory Costs	Total Costs for PIM Calculations
Non-Income Eligible Residential SUBTOTAL	\$28,057,903	\$2,622,441	\$30,680,345
Income Eligible Residential SUBTOTAL	\$15,122,416	\$2,622,441	\$17,744,857
C&I SUBTOTAL	\$49,231,098	\$2,622,441	\$51,853,539
Included in PIM? (Y/N)	Y	Y	Y

Notes

Source is Table E-2 and E-3. Regulatory costs allocated equally to each sector.

Table E-9C - EERMC 1-3-1
National Grid
2022 Electric PIM and SQA

Sector PI = min(Payout Cap[(i)], [Actual Net Benefits* Design Payout Rate(g) * Payout Rate Adjustment(f)])

Sector	Planned Eligible Benefits		Planned Eligible Costs	Planned Eligible Net Benefits (4)	Design Performance Achievement	Design Performance Payout	Design Payout Rate	Design Payout Rate Thresholds	Payout Rate Adjustments	Payout Cap	Service Quality Metric
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
	100% Electric Utility System Benefits	50% Resource Benefits	Eligible Spending Budget + Regulatory Costs	=(a)-(b)-(c)	Net benefits at which design incentive pool is achieved	Set by PUC	=(f)/(e)	Achievement levels at which the Payout Rate Adjustments in (i) will be applied—Set by PUC	Factor to adjust Design Payout Rate for if final program achievement fall within the ranges in (h)—Set by PUC	=1.25*(j)	Yes if (d) ≤ 0; No if (d) > 0
										Cap on sector payout regardless of achievement in sector	See Service Quality Table
Non-income Eligible Residential	\$23,020,092	\$5,990,212	\$30,680,345	-\$1,670,041	\$2,000,000	\$500,000	25%	a. Achievement < 25% b. 25% ≤ Achievement < 50% c. 50% ≤ Achievement < 75% d. 75% ≤ Achievement e. Spending > Planned Eligible Costs	a. 0.0 b. Achievement/100 c. 0.1 d. Achievement/100 e. 0.25 f. See Boundary Rules	\$625,000	Yes
Income Eligible Residential	\$7,487,731	\$2,900,119	\$17,744,857	-\$7,357,007	\$2,000,000	\$500,000	25%			\$625,000	Yes
Commercial & Industrial	\$81,286,867	-\$1,175,293	\$51,853,539	\$28,258,034	\$28,258,034	\$5,500,000	19%			\$6,875,000	No

Sector SQA = Maximum Service Adjustment(e) * Service Achievement Scaling Factor(g)

	Planned Eligible Benefits		Planned Eligible Costs	Design Service Achievement	Maximum Service Adjustment	Service Adjustment Thresholds	Service Achievement Scaling Factors	Achievement Cost Adjustment
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	100% Electric Utility System Benefits	50% Resource Benefits	Eligible Spending Budget + Regulatory Costs	=(a)-(b)	Maximum downward adjustment to earned incentive—Set by PUC	Adjusted Achievement levels at which the Service Adjustments in (e) will be applied; adjustment is calculated in (h)	Factor to scale program achievement that fall within the ranges in (f)	Actual-cost-based adjustment factor applied to achievement. Result is if the difference between achievement and cost variances are greater than 5%, the Actual Achievement will be adjusted for use in
Non-income Eligible Residential	\$23,020,092	\$5,990,212	\$30,680,345	\$29,010,304	\$1,251,250	a. Adjusted Achievement < 65% b. 65% ≤ Adjusted Achievement < 95% c. 95% ≤ Adjusted Achievement	a. 1 b. 95-Adjusted Achievement/30 c. 0	Performance Variance = "Actual Benefits" / "Design Achievement" - "Spending" / "Planned Eligible Cost" If the absolute value (Performance Variance) ≤ 0.05, Then Adjusted Achievement = Actual Achievement Else Adjusted Achievement = Actual Achievement * (1 + Performance Variance)
Income Eligible Residential	\$7,487,731	\$2,900,119	\$17,744,857	\$10,387,850	\$715,000			
Commercial & Industrial	\$81,286,867	-\$1,175,293	\$51,853,539	N/A	N/A			

**Table E-9 - EERMC 1-3-1
National Grid
Revolving Loan Fund Projections**

Large C&I Revolving Loan Fund		Small Business Revolving Loan Fund	
(1) Total Loan Fund Deposits Through 2021	\$ 18,547,780	(1) Total Loan Fund Deposits Through 2021	\$ 3,303,570
(2) Current Loan Fund Balance	\$ 7,208,593	(2) Current Loan Fund Balance	\$ 2,743,078
<i>Loans Paid Year-To-Date</i>	\$ 3,356,693	<i>Loans Paid Year-To-Date</i>	\$ 570,365
<i>Repayments Year-To-Date</i>	\$ 2,946,562	<i>Repayments Year-To-Date</i>	\$ 606,588
(3) Projected Additional Loans by Year End 2021	\$ 5,770,777	(3) Projected Additional Loans by Year End 2021	\$ 510,000
(4) Projected Additional Repayments by Year End 2021	\$ 2,453,636	(4) Projected Additional Repayments by Year End 2021	\$ 275,529
(5) Projected Year End Loan Fund Balance 2021	\$ 3,891,451	(5) Projected Year End Loan Fund Balance 2021	\$ 2,508,608
(6) 2022 Fund Injection	\$ 1,800,000	(6) 2022 Fund Injection	\$ -
(7) Projected Loan Fund Balance, January 2022	\$ 5,691,451	(7) Projected Loan Fund Balance, January 2022	\$ 2,508,608
(8) Projected Repayments throughout 2022	\$ 3,881,906	(8) Projected Repayments throughout 2022	\$ 245,746
(9) Estimated Loans in 2022	\$ 8,928,261	(9) Estimated Loans in 2022	\$ 1,500,000
(10) Projected Year End Loan Fund Balance 2022	\$ 645,095	(10) Projected Year End Loan Fund Balance 2022	\$ 1,254,353

Public Sector Revolving Loan Fund		Efficient Buildings Fund	
(1) Total Loan Fund Deposits Through 2021	\$ 54,065	(1) Energy Efficiency Funds allocated to EBF through 2021	\$ 27,087,113
(2) Current Loan Fund Balance	\$ 34,124	(2) Total EBF Loans Outstanding	\$ 55,075,045
<i>Funds returned to OER</i>	\$ -		
<i>Repayments Year-To-Date</i>	\$ 34,052		
(3) Projected Additional Loans by Year End	\$ -		
(4) Projected Additional Repayments by Year End	\$ 15,523		
(5) Projected Year End Loan Fund Balance 2021	\$ 49,647		
(6) 2022 Fund Injection	\$ -		
(7) Projected Loan Fund Balance, January 2022	\$ 49,647		
(8) Projected Repayments throughout 2022	\$ 2,945		
(9) Estimated Loans in 2022	\$ -		
(10) Projected Year End Loan Fund Balance 2022	\$ 52,592		

Notes

- 1 Funding injections since loan funds began. Net of any adjustments. #N/A
- 2 Current Loan Fund Balance is through July 2021; it includes all loans and repayments made by July 2021. Public Sector Revolving Loan Fund reduced by transfers to RI PEP Incentives. EBF reports in terms of loans outstanding.
- 3 Projected Loans from July to Year-End 2021 is estimated based on projects currently under construction that are anticipated to be paid out by year-end. It is difficult to project this amount accurately due to the fact that projects could be delayed by a month or two resulting in payment occurring in 2022 instead of 2021.
- 4 Projected Repayments from June to Year-End 2021 is estimated based on the monthly average amount of repayments.
- 5 Equal to (2) - (3) + (4).
- 6 Fund injection of \$2M for the Large C&I Revolving Loan Fund in included under the Finance Cost line in table E-2.
- 7 Equal to (5) + (6).
- 8 Assumption based on monthly average repayments in 2021 over 12 month period; repayments accumulate over time and may vary widely.
- 9 Amount projected to be lent to customers in 2022
- 10 Equal to (7) + (8) - (9).
- Efficient Buildings Fund - The 2022 Annual Plan only includes two values for EBF: 1) The Energy Efficiency Funds allocated to EBF through 2021. This assumes that the \$5M allocated to EBF for 2021 will be transferred to RIIB in 2021. 2) Total EBF Loans Outstanding as of July 2021. Additional information is not available because RIIB has informed the Company that, commencing with the 2022 Plan, it will not be providing forward looking projections to the Company regarding EBF. The Company is therefore unable to provide any future projections in the 2022 Annual Plan regarding EBF. The state's System Reliability and Least Cost procurement statute (amended in 2021) directs that \$5M shall be transferred to RIIB. However, RIIB has not informed the Company the statutory \$5M transfer to RIIB in 2022 will go to EBF.

Table E-10 - EERMC 1-3-1
National Grid
Rhode Island Electric Energy Efficiency 2003 - 2022
\$(000)

Electric	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013 ⁽⁴⁾	2014	2015	2016	2017	2018	2019	2020 ⁽⁵⁾	2021 ⁽⁶⁾	2022 ⁽⁵⁾
Energy Efficiency Budget (\$Million) ⁽¹⁾	\$23.1	\$22.6	\$23.1	\$22.4	\$22.5	\$21.0	\$32.4	\$37.6	\$59.2	\$61.4	\$77.5	\$87.0	\$86.6	\$87.5	\$94.6	\$94.6	\$107.5	\$111.1	\$116.8	\$111.4
Spending Budget (\$Million) ⁽²⁾	\$16.3	\$15.8	\$17.6	\$16.5	\$16.4	\$14.7	\$23.5	\$28.8	\$45.3	\$55.3	\$64.8	\$80.6	\$77.3	\$77.6	\$88.5	\$88.7	\$98.1	\$101.1	\$104.8	\$92.4
Actual Expenditures (\$Million) ⁽³⁾	\$22.8	\$19.5	\$23.4	\$23.7	\$21.9	\$19.2	\$31.7	\$29.7	\$40.0	\$50.7	\$72.9	\$85.3	\$87.4	\$78.4	\$94.8	\$93.0	\$100.7	\$88.2		
Incentive Percentage ⁽¹⁰⁾	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	N/A	N/A
Target Incentive ⁽¹¹⁾	\$712,557	\$781,959	\$774,689	\$726,627	\$723,000	\$647,689	\$1,035,943	\$1,267,043	\$1,992,513	\$2,434,131	\$3,240,747	\$4,032,000	\$3,867,400	\$3,878,087	\$4,425,528	\$4,436,022	\$4,905,009	\$5,054,448	\$5,500,000	\$5,500,000
Earned Incentive	\$712,557	\$604,876	\$795,648	\$760,623	\$716,075	\$675,282	\$1,085,888	\$1,333,996	\$1,929,273	\$2,469,411	\$2,997,681	\$4,223,321	\$4,533,360	\$4,128,034	\$4,829,847	\$4,940,402	\$3,290,237	\$3,242,675		
Annual Summer Demand kW Savings Goal Achieved (%)				106%	106%	113%	142%	78%	71%	83%	114%	78%	112%	101%	103%	116%	98%	79%		
Annual MWh Energy Savings Goal Achieved (%)				111%	102%	111%	115%	107%	94%	93%	99%	105%	115%	107%	115%	110%	98%	88%		
Energy Efficiency Program Charge (\$/kWh) ⁽⁷⁾	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00320	\$0.00320	\$0.00526	\$0.00592	\$0.00876	\$0.00911	\$0.00953	\$0.01077	\$0.01124	\$0.00972	\$0.01121	\$0.01323	\$0.01113	\$0.01271
Annual Cost to 500 kWh/month Residential Customer w/o tax ⁽⁸⁾	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$19.20	\$19.20	\$31.56	\$35.52	\$52.56	\$54.66	\$57.18	\$64.62	\$67.44	\$58.32	\$67.26	\$79.38	\$66.78	\$76.26
Annual Cost to 500 kWh/month Residential Customer w/ tax ⁽⁹⁾	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50	\$20.00	\$20.00	\$32.88	\$37.00	\$54.75	\$56.94	\$59.56	\$67.31	\$70.25	\$60.75	\$70.06	\$82.69	\$69.56	\$79.44

Notes:

- (1) Energy Efficiency Budget includes total expenditures and commitments. Includes all demand side management program-related expenses, including rebates, administration and general expenses, evaluation, commitments for future years and Company incentive.
- (2) Prior to 2017, Spending Budget Eligible for Shareholder Incentive includes: Implementation, Administration, General, and Evaluation Expenses; excludes EERMC and OER Costs, Commitments, Copays, and Outside Finance Costs. Beginning in 2017, Outside Finance Costs were also included. Beginning in 2018 Pilot expenses were also excluded. Beginning in 2019 ConnectedSolutions expenses and assessments were also excluded.
- (3) Actual Expenditures is actual spend during calendar year. Includes expenditures and commitments. Includes all demand side management program-related expenses, including rebates, administration and general expenses, evaluation, commitments for future years and Company incentive.
- (4) In the Company's gas and electric rate cases in docket 4323, the PUC approved the uncollectibles gross-up in the electric EE Program Charge effective February 1, 2013, and a new rate applicable to the gross-up of the gas EE Program Charge, effective February 1, 2013.
- (5) 2021 values are planned.
- (6) 2022 values are proposed.
- (7) Beginning in 2012, the EE Program Charge includes the System Reliability Factor. It does not include the \$0.0003 renewables per RI General Laws §39-2-1.2 and Order #19608, which appears on customer bills.
- (8) Reflects the annual cost excluding Gross Earnings Tax.
- (9) Reflects the annual cost including Gross Earnings Tax.
- (10) Incentive percentage not applicable for 2021 due to new performance incentive mechanism developed for the 2021 Annual Plan. See Section 11 of the Main Text of the 2022 Annual Plan for additional details.
- (11) Target incentive is calculated in the same way as in 2021 in order to provide a more accurate estimate of the energy efficiency surcharge.

**Table G-1 - EERMC 1-3-2
National Grid
Gas DSM Funding Sources in 2022 by Sector
\$(000)**

	<u>Projections by Sector</u>			Total
	Income Eligible Residential	Non-Income Eligible Residential	Commercial & Industrial	
(1) Projected Budget (from G-2):	\$8,433.3	\$13,977.9	\$10,809.8	\$33,221.0
Sources of Other Funding:				
(2) Projected Year-End 2021 Fund Balance and Interest:	\$0.0	(\$7,849.6)	\$2,773.5	(\$5,076.1)
(3) Total Other Funding:	\$0.0	(\$7,849.6)	\$2,773.5	(\$5,076.1)
(4) Customer Funding Required:	\$8,433.3	\$21,827.5	\$8,036.4	\$38,297.1
(5) Forecasted Firm Dth Volume	1,685,277	18,876,534	19,843,867	40,405,678
(6) Forecasted Non Firm Dth Volume			2,278,545	2,278,545
(7) Less: Exempt DG Customers			(1,244,516)	(1,244,516)
(8) Forecasted Dth Volume:	1,685,277	18,876,534	20,877,896	41,439,707
Average Energy Efficiency Program Charge per Dth				
(9) excluding Uncollectible Recovery:				\$0.924
(10) Proposed Energy Efficiency Program Charge per Dth excluding Uncollectible Recovery	\$1.116	\$1.116	\$0.734	
(11) Currently Effective Uncollectible Rate	<u>1.91%</u>	<u>1.91%</u>	<u>1.91%</u>	
(12) Proposed Energy Efficiency Program Charge per Dth, including Uncollectible Recovery:	\$1.137	\$1.137	\$0.748	
(13) Currently Effective Energy Efficiency Program Charge per Dth	\$0.871	\$0.871	\$0.596	
(14) Adjustment to Reflect Fully Reconciling Funding Mechanism	\$0.266	\$0.266	\$0.152	

Notes

- (1) Projected Budget from G-2 includes OER and EERMC costs allocated to each sector based on forecasted volume.
- (2) Fund Balance projections include projected revenue and spend through year-end with Residential and C&I sector subsidies applied to Income Eligible as detailed in the 2022 EE Plan Table G-1. The Company proposes to refile this table with updated Fund Balance projections on November 17, 2021 as proposed in Section 10 of the Plan's Main Text.
- (10) The proposed EE program charges allow for the use of collections from one sector to fund energy efficiency services in other sectors that would otherwise not be supported with the proposed collection rates. The C&I charge includes collection of \$7.64 million of which \$4.17 million will be allocated to the low income sector and \$3.47 million to the residential sector.
- (11) Uncollectible rate approved in Docket No. 4770.

**Table G-2 - EERMC 1-3-2
National Grid
2022 Gas Energy Efficiency Program Budget (\$000)**

	Program Planning and Administration	Marketing	Cost of services and product rebates/incentives provided to customers	Sales, Technical Assistance and Training	Evaluation & Market Research	Performance Incentive	Grand Total
Non-Income Eligible Residential:							
ENERGY STAR [®] HVAC	\$102.2	\$186.2	\$2,753.0	\$214.8	\$103.0	\$0.0	\$3,359.2
EnergyWise	\$179.9	\$64.0	\$6,333.9	\$1,056.0	\$147.5	\$0.0	\$7,781.3
EnergyWise Multifamily	\$43.5	\$50.0	\$1,094.4	\$138.9	\$13.4	\$0.0	\$1,340.2
Home Energy Reports	\$8.7	\$0.0	\$0.0	\$386.2	\$2.7	\$0.0	\$397.6
Residential Pilots	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Residential New Construction	\$27.1	\$1.9	\$298.9	\$103.7	\$30.2	\$0.0	\$461.8
Comprehensive Marketing - Residential	\$0.1	\$61.2	\$0.0	\$0.0	\$0.0	\$0.0	\$61.2
Community Based Initiatives - Residential	\$10.1	\$37.5	\$28.9	\$0.0	\$0.0	\$0.0	\$76.5
Residential Performance Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Subtotal - Non-Income Eligible Residential	\$371.7	\$400.7	\$10,509.1	\$1,899.6	\$296.8	\$0.0	\$13,478.0
Income Eligible Residential:							
Single Family - Income Eligible Services	\$120.9	\$22.5	\$4,514.7	\$1,051.9	\$24.5	\$0.0	\$5,734.6
Income Eligible Multifamily	\$65.3	\$7.6	\$2,227.0	\$327.8	\$26.4	\$0.0	\$2,654.1
Income Eligible Performance Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Subtotal - Income Eligible Residential	\$186.2	\$30.1	\$6,741.8	\$1,379.7	\$50.9	\$0.0	\$8,388.6
Commercial & Industrial							
Large Commercial New Construction	\$106.6	\$136.9	\$1,472.4	\$957.2	\$194.9	\$0.0	\$2,867.9
Large Commercial Retrofit	\$185.8	\$235.7	\$2,288.7	\$1,381.7	\$134.8	\$0.0	\$4,226.7
Small Business Direct Install	\$5.2	\$28.0	\$242.9	\$40.0	\$4.1	\$0.0	\$320.3
Commercial & Industrial Multifamily	\$23.7	\$23.3	\$680.4	\$128.2	\$5.9	\$0.0	\$861.5
Commercial Pilots	\$0.0	\$6.8	\$160.5	\$27.0	\$0.0	\$0.0	\$194.2
Finance Costs	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Community Based Initiatives - C&I	\$3.4	\$12.5	\$9.6	\$0.0	\$0.0	\$0.0	\$25.5
Commercial Workforce Development	\$0.0	\$0.0	\$0.0	\$60.8	\$0.0	\$0.0	\$60.8
Commercial & Industrial Performance Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,700.0	\$1,700.0
Subtotal - Commercial & Industrial	\$324.7	\$443.2	\$4,854.5	\$2,594.8	\$339.7	\$1,700.0	\$10,256.9
Regulatory							
EERMC	\$439.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$439.0
OER	\$658.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$658.5
Subtotal - Regulatory	\$1,097.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,097.5
Grand Total	\$1,980.1	\$873.9	\$22,105.4	\$5,874.1	\$687.5	\$1,700.0	\$33,221.0

Notes:

- (1) OER and EERMC is equal to 3% of total collections from customers' Energy Efficiency Program Charge, reduced by 3%.
- (2) Demonstrations and Assessments are included in specific program level budgets listed above. More information on Demonstration and Assessments descriptions, budgets, and which program level budget they are included in can be found in Attachment 8.

**Table G-3 - EERMC 1-3-2
National Grid
Derivation of the 2022 Spending & Implementation Budgets (\$000)**

	Proposed 2022 Budget From G-2 (\$000)	Outside Finance and Stakeholder Oversight Costs (\$000)	Performance Incentive (\$000)	Eligible Sector Spending Budget for Performance Incentive on G-9 (\$000) ¹	Implementation Expenses for Cost-Effectiveness on G-5 (\$000) ²
Non-Income Eligible Residential					
ENERGY STAR [®] HVAC	\$3,359.2				\$3,359.2
EnergyWise	\$7,781.3				\$7,781.3
EnergyWise Multifamily	\$1,340.2				\$1,340.2
Home Energy Reports	\$397.6				\$397.6
Residential Pilots	\$0.0				\$0.0
Residential New Construction	\$461.8				\$461.8
Comprehensive Marketing - Residential	\$61.2				\$61.2
Community Based Initiatives - Residential	\$76.5				\$76.5
Residential Performance Incentive	\$0.0		\$0.0		\$0.0
Subtotal - Non-Income Eligible Residential	\$13,478.0	\$0.0	\$0.0	\$13,478.0	\$13,478.0
Income Eligible Residential					
Single Family - Income Eligible Services	\$5,734.6				\$5,734.6
Income Eligible Multifamily	\$2,654.1				\$2,654.1
Income Eligible Performance Incentive	\$0.0		\$0.0		\$0.0
Subtotal - Income Eligible Residential	\$8,388.6	\$0.0	\$0.0	\$8,388.6	\$8,388.6
Commercial & Industrial					
Large Commercial New Construction	\$2,867.9				\$2,867.9
Large Commercial Retrofit	\$4,226.7				\$4,226.7
Small Business Direct Install	\$320.3				\$320.3
Commercial & Industrial Multifamily	\$861.5				\$861.5
Commercial Pilots	\$194.2				\$194.2
Finance Costs	\$0.0	\$0.0			\$0.0
Community Based Initiatives - C&I	\$25.5				\$25.5
Commercial Workforce Development	\$60.8				\$60.8
Commercial & Industrial Performance Incentive	\$1,700.0		\$1,700.0		\$0.0
Subtotal - Commercial & Industrial	\$10,256.9	\$0.0	\$1,700.0	\$8,331.6	\$8,556.9
Regulatory					
EERMC	\$439.0	\$439.0			\$439.0
OER	\$658.5	\$658.5			\$658.5
Subtotal - Regulatory	\$1,097.5	\$1,097.5			\$1,097.5
Grand Total	\$33,221.0	\$1,097.5	\$1,700.0	\$30,198.2	\$31,521.0

Notes:

- (1) Eligible Sector Spending Budget for Performance Incentive = Budget from G-2 minus Regulatory Costs, Pilots, Assessments, and Performance Incentive.
- (2) Implementation Expenses = Budget from G-2 minus Performance Incentive.
- (3) Eligible Sector Spending Budget does not include assessments, see Attachment 8 for assessments budgets.

**Table G-4 - EERMC 1-3-2
National Grid
Proposed 2022 Budget Compared to Approved 2021 Budget (\$000)**

	Proposed Budget 2022 from G-2	2021 Approved Gas Budget	Difference
Non-Income Eligible Residential			
ENERGY STAR® HVAC	\$3,359.2	\$3,673.0	-\$313.8
EnergyWise	\$7,781.3	\$8,117.6	-\$336.3
EnergyWise Multifamily	\$1,340.2	\$1,491.6	-\$151.4
Home Energy Reports	\$397.6	\$450.9	-\$53.2
Residential Pilots	\$0.0	\$0.0	\$0.0
Residential New Construction	\$461.8	\$674.8	-\$213.0
Comprehensive Marketing - Residential	\$61.2	\$64.8	-\$3.5
Community Based Initiatives - Residential	\$76.5	\$75.8	\$0.6
Residential Performance Incentive	\$0.0	\$595.0	-\$595.0
Subtotal - Non-Income Eligible Residential	\$13,478.0	\$15,143.5	-\$1,665.5
Income Eligible Residential			
Single Family - Income Eligible Services	\$5,734.6	\$5,952.3	-\$217.7
Income Eligible Multifamily	\$2,654.1	\$3,009.4	-\$355.4
Income Eligible Performance Incentive	\$0.0	\$425.0	-\$425.0
Subtotal - Income Eligible Residential	\$8,388.6	\$9,386.8	-\$998.1
Commercial & Industrial			
Large Commercial New Construction	\$2,867.9	\$2,634.2	\$233.8
Large Commercial Retrofit	\$4,226.7	\$5,054.1	-\$827.4
Small Business Direct Install	\$320.3	\$332.7	-\$12.4
Commercial & Industrial Multifamily	\$861.5	\$953.2	-\$91.7
Commercial Pilots	\$194.2	\$215.8	-\$21.6
Finance Costs	\$0.0	\$0.0	\$0.0
Community Based Initiatives - C&I	\$25.5	\$24.8	\$0.6
Commercial Workforce Development	\$60.8	\$0.0	\$60.8
Commercial & Industrial Performance Incentive	\$1,700.0	\$680.0	\$1,020.0
Subtotal Commercial & Industrial	\$10,256.9	\$9,894.8	\$362.1
Regulatory			
EERMC	\$439.0	\$275.1	\$163.9
OER	\$658.5	\$275.1	\$383.5
Subtotal Regulatory	\$1,097.5	\$550.1	\$547.4
TOTAL BUDGET	\$33,221.0	\$34,975.2	-\$1,754.2

Notes:

- (1) Program Implementation Budget excludes Commitments, Company Incentive; derived on Table G-3
- (2) Total Budget includes Implementation, Commitments; illustrated on Table G-3
- (3) Performance Incentive is allocated to the C&I Sector Consistent with the final PIM approved in Docket 5076.

**Table G-5 - Primary - EERMC 1-3-2
National Grid
Calculation of 2022 Program Year Cost-Effectiveness
All Dollar Values in (\$000)**

	Rhode Island Benefit/ Cost	Total Benefit	Program Implementation Expenses	Customer Contribution	Performance Incentive	\$/Lifetime MMBtu
Non-Income Eligible Residential						
Energy Star® HVAC	1.00	\$6,882.1	\$3,359.2	\$3,503.6		\$17.34
EnergyWise	1.13	\$9,442.1	\$7,781.3	\$603.2		\$19.46
EnergyWise MultiFamily	3.45	\$5,685.5	\$1,340.2	\$309.6		\$12.46
Home Energy Reports	3.87	\$1,540.9	\$397.6	\$0.0		\$4.72
Residential New Construction	1.64	\$1,418.2	\$461.8	\$402.3		\$14.47
Comprehensive Marketing - Residential			\$61.2			
Community Based Initiatives - Residential			\$76.5			
Residential Pilots			\$0.0			
Non-Income Eligible Residential Subtotal	1.36	\$24,968.7	\$13,478.0	\$4,818.7	\$0.0	\$16.59
Income Eligible Residential						
Single Family - Income Eligible Services	2.04	\$11,693.3	\$5,734.6	\$0.0		\$29.10
Income Eligible Multifamily	5.98	\$15,877.0	\$2,654.1	\$0.0		\$10.78
Income Eligible Residential Subtotal	3.29	\$27,570.3	\$8,388.6	\$0.0	\$0.0	\$18.92
Large Commercial & Industrial						
Large Commercial New Construction	5.52	\$17,049.9	\$2,867.9	\$218.7		\$4.35
Large Commercial Retrofit	5.20	\$35,097.2	\$4,226.7	\$2,529.2		\$5.63
Small Business Direct Install	3.95	\$1,517.5	\$320.3	\$64.2		\$4.66
Commercial & Industrial Multifamily	5.86	\$5,492.7	\$861.5	\$75.6		\$7.92
Commercial Pilots			\$194.2			
Community Based Initiatives - C&I			\$25.5			
Finance Costs			\$0.0			
Commercial Workforce Development			\$60.8			
Commercial & Industrial Subtotal	4.50	\$59,157.3	\$8,556.9	\$2,887.7	\$1,700.0	\$5.42
Regulatory						
EERMC			\$439.0			
OER			\$658.5			
Regulatory Subtotal			\$1,097.5			
Grand Total	2.73	\$111,696.3	\$31,521.0	\$7,706.5	\$1,700.0	\$10.73

Notes:

- (1) RI Test B/C Test = Total Benefits from Table G-6 excluding Economic Benefits / Program Implementation Expenses from Table G-3. Also includes effects of free-ridership and spillover.
- (2) For Implementation Expenses derivation, see Table G-3.

**Table G-5 - Secondary - EERMC 1-3-2
National Grid
Calculation of 2022 Program Year Cost-Effectiveness with Economic Benefits Included
All Dollar Values in (\$000)**

	Rhode Island Benefit/ Cost	Total Benefit	Program Implementation Expenses	Customer Contribution	Performance Incentive	\$/Lifetime MMBtu
Non-Income Eligible Residential						
Energy Star® HVAC	1.41	\$9,670.2	\$3,359.2	\$3,503.6		\$17.34
EnergyWise	2.06	\$17,301.2	\$7,781.3	\$603.2		\$19.46
EnergyWise MultiFamily	4.77	\$7,870.1	\$1,340.2	\$309.6		\$12.46
Home Energy Reports	4.93	\$1,962.4	\$397.6	\$0.0		\$4.72
Residential New Construction	1.76	\$1,519.8	\$461.8	\$402.3		\$14.47
Comprehensive Marketing - Residential			\$61.2			
Community Based Initiatives - Residential			\$76.5			
Residential Pilots			\$0.0			
Non-Income Eligible Residential Subtotal	2.09	\$38,323.7	\$13,478.0	\$4,818.7	\$0.0	\$16.59
Income Eligible Residential						
Single Family - Income Eligible Services	3.03	\$17,370.6	\$5,734.6	\$0.0		\$29.10
Income Eligible Multifamily	7.53	\$19,990.8	\$2,654.1	\$0.0		\$10.78
Income Eligible Residential Subtotal	4.45	\$37,361.3	\$8,388.6	\$0.0	\$0.0	\$18.92
Large Commercial & Industrial						
Large Commercial New Construction	6.84	\$21,122.3	\$2,867.9	\$218.7		\$4.35
Large Commercial Retrofit	6.78	\$45,790.6	\$4,226.7	\$2,529.2		\$5.63
Small Business Direct Install	5.40	\$2,078.0	\$320.3	\$64.2		\$4.66
Commercial & Industrial Multifamily	7.60	\$7,121.0	\$861.5	\$75.6		\$7.92
Commercial Pilots			\$194.2			
Community Based Initiatives - C&I			\$25.5			
Finance Costs			\$0.0			
Commercial Workforce Development			\$60.8			
Commercial & Industrial Subtotal	5.79	\$76,112.0	\$8,556.9	\$2,887.7	\$1,700.0	\$5.42
Regulatory						
EERMC			\$439.0			
OER			\$658.5			
Regulatory Subtotal			\$1,097.5			
Grand Total	3.71	\$151,797.1	\$31,521.0	\$7,706.5	\$1,700.0	\$10.73

Notes:

- (1) RI Test B/C Test = Total Benefits from Table G-6 including Economic Benefits / Program Implementation Expenses from Table G-3
Also includes effects of free-ridership and spillover.
- (2) For Implementation Expenses derivation, see Table G-3.

**Table G-5A - EERMC 1-3-2
National Grid
Calculation of 2022 Program Year Cost-Effectiveness with TRC Test
All Dollar Values in (\$000)**

	TRC Benefit/ Cost	Total Benefit	Program Implementation Expenses	Customer Contribution	Performance Incentive	\$/Lifetime MMBtu
Non-Income Eligible Residential						
Energy Star® HVAC	0.60	\$4,106.1	\$3,359.2	\$3,503.6		\$17.3
EnergyWise	0.82	\$6,862.1	\$7,781.3	\$603.2		\$19.5
EnergyWise MultiFamily	2.91	\$4,796.4	\$1,340.2	\$309.6		\$12.5
Home Energy Reports	1.70	\$674.9	\$397.6	\$0.0		\$4.7
Residential New Construction	1.19	\$1,032.2	\$461.8	\$402.3		\$14.5
Comprehensive Marketing - Residential			\$61.2			
Community Based Initiatives - Residential			\$76.5			
Residential Pilots			\$0.0			
Residential Workforce Development			\$0.0			
Non-Income Eligible Residential Subtotal	0.95	\$17,471.8	\$13,478.0	\$4,818.7	\$0.0	\$16.6
Income Eligible Residential						
Single Family - Income Eligible Services	1.81	\$10,382.0	\$5,734.6	\$0.0		\$29.1
Income Eligible Multifamily	5.38	\$14,271.9	\$2,654.1	\$0.0		\$10.8
Income Eligible Workforce Development			\$0.0			\$0.0
Income Eligible Residential Subtotal	2.94	\$24,653.9	\$8,388.6	\$0.0	\$0.0	\$18.9
Large Commercial & Industrial						
Large Commercial New Construction	3.84	\$11,845.7	\$2,867.9	\$218.7		\$4.3
Large Commercial Retrofit	3.73	\$25,170.4	\$4,226.7	\$2,529.2		\$5.6
Small Business Direct Install	2.36	\$908.5	\$320.3	\$64.2		\$4.7
Commercial & Industrial Multifamily	4.92	\$4,614.6	\$861.5	\$75.6		\$7.9
Commercial Pilots			\$194.2	\$0.0		
Community Based Initiatives - C&I			\$25.5	\$0.0		
Finance Costs			\$0.0	\$0.0		
Commercial Workforce Development			\$60.8	\$0.0		
Commercial & Industrial Subtotal	3.24	\$42,539.2	\$8,556.9	\$2,887.7	\$1,700.0	\$5.4
Regulatory						
EERMC			\$439.0			
OER			\$658.5			
Regulatory Subtotal			\$1,097.5			
Grand Total	2.07	\$84,664.9	\$31,521.0	\$7,706.5	\$1,700.0	\$10.7

Notes:

(1) TRC B/C Test = (Energy + Capacity + Resource Benefits) / (Program Implementation + Customer Contribution + Performance Incentive)

Also includes effects of free-ridership and spillover.

(2) For Implementation Expenses derivation, see Table G-3.

Table G-6 - EERMC 1-3-2
National Grid
Summary of 2022 Benefits by Program

	Benefits (\$000)																			
	Total	Total (Economic Excluded)	Natural Gas Benefits		Electric Capacity					Electric Energy				Non-Electric and Non-Gas			Societal			
			Natural Gas	Natural Gas DRIPE	Summer Generation	Capacity DRIPE	Trans	Dist	Reliability	Winter		Summer		Electric Energy DRIPE	Oil	Other Resource	Non Resource	Carbon	NOx	Economic
Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak																	
Non-Income Eligible Residential																				
EnergyWise	\$17,301	\$9,442	\$3,712	\$30	\$52	\$91	\$68	\$67	\$5	\$42	\$48	\$43	\$37	\$32	\$0	\$46	\$2,591	\$2,299	\$281	\$7,859
Energy Star® HVAC	\$9,670	\$6,882	\$3,353	\$38	\$7	\$18	\$9	\$9	\$1	-\$6	-\$6	\$4	\$3	-\$2	\$0	\$171	\$507	\$2,513	\$263	\$2,788
EnergyWise Multifamily	\$7,870	\$5,685	\$1,139	\$12	\$7	\$15	\$9	\$9	\$1	\$1	\$1	\$5	\$4	\$3	\$0	\$39	\$3,553	\$802	\$87	\$2,185
Home Energy Reports	\$1,962	\$1,541	\$652	\$23	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$808	\$58	\$422
Residential New Construction	\$1,520	\$1,418	\$519	\$5	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7	\$501	\$346	\$39	\$102
Non-Income Eligible Residential SUBTOTAL	\$38,324	\$24,969	\$9,375	\$108	\$66	\$124	\$85	\$85	\$6	\$37	\$42	\$52	\$45	\$32	\$0	\$262	\$7,153	\$6,769	\$728	\$13,355
Income Eligible Residential																				
Single Family - Income Eligible Services	\$17,371	\$11,693	\$1,732	\$16	\$22	\$45	\$29	\$29	\$2	\$26	\$31	\$17	\$15	\$21	\$0	\$0	\$8,394	\$1,180	\$131	\$5,677
Income Eligible Multifamily	\$19,991	\$15,877	\$2,141	\$22	\$4	\$12	\$5	\$5	\$1	\$0	\$0	\$3	\$2	\$2	\$0	\$47	\$12,028	\$1,443	\$162	\$4,114
Income Eligible Residential SUBTOTAL	\$37,361	\$27,570	\$3,873	\$38	\$26	\$56	\$35	\$34	\$3	\$27	\$31	\$20	\$18	\$23	\$0	\$47	\$20,423	\$2,623	\$294	\$9,791
Commercial & Industrial																				
Large Commercial New Construction	\$21,122	\$17,050	\$5,160	\$60	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$43	\$6,583	\$4,699	\$505	\$4,072
Large Commercial Retrofit	\$45,791	\$35,097	\$9,416	\$189	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$35	\$15,530	\$9,064	\$863	\$10,693
Small Business Direct Install	\$2,078	\$1,518	\$638	\$8	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$262	\$0	\$550	\$59	\$561
Commercial & Industrial Multifamily	\$7,121	\$5,493	\$964	\$13	\$4	\$12	\$5	\$5	\$1	\$0	\$0	\$3	\$2	\$2	\$0	\$23	\$3,581	\$794	\$84	\$1,628
Commercial & Industrial SUBTOTAL	\$76,112	\$59,157	\$16,178	\$270	\$4	\$12	\$5	\$5	\$1	\$0	\$0	\$3	\$2	\$2	\$0	\$364	\$25,694	\$15,108	\$1,510	\$16,955
Grand Total	\$151,797	\$111,696	\$29,425	\$416	\$96	\$192	\$125	\$124	\$10	\$64	\$74	\$74	\$64	\$58	\$0	\$673	\$53,269	\$24,500	\$2,532	\$40,101

**Table G-6A - EERMC 1-3-2
National Grid
Summary of 2022 Impacts by Program**

	Gas Saved (MMBtu)	
	Annual	Lifetime
Non-Income Eligible Residential		
EnergyWise	18,769	430,783
Energy Star® HVAC	24,070	395,783
EnergyWise Multifamily	7,451	132,358
Home Energy Reports	84,193	84,193
Residential New Construction	3,363	59,715
Non-Income Eligible Residential SUBTOTAL	137,846	1,102,833
Income Eligible Residential		
Single Family - Income Eligible Services	9,852	197,048
Income Eligible Multifamily	13,257	246,236
Income Eligible Residential SUBTOTAL	23,110	443,284
Commercial & Industrial		
Large Commercial New Construction	47,660	709,884
Large Commercial Retrofit	128,600	1,199,268
Small Business Direct Install	5,502	82,530
Commercial & Industrial Multifamily	7,937	118,315
Commercial & Industrial SUBTOTAL	189,700	2,109,997
Grand Total	350,655	3,656,113

Notes:

1) Lifetime savings are equal to annual savings multiplied by the expected life of measures expected to be installed in each program.

**Table G-7 - EERMC 1-3-2
National Grid
Comparison of 2022 and 2021 Goals**

	Proposed 2022 Goal	Proposed 2022 Tracking		Approved 2021		Difference	
	Lifetime Energy Savings (MMBtu Natural Gas)	Annual Energy Savings (MMBtu Natural Gas)	Planned Unique Participants	Lifetime Energy Savings (MMBtu Natural Gas)	Annual Energy Savings (MMBtu Natural Gas)	Lifetime Energy Savings (MMBtu Natural Gas)	Annual Energy Savings (MMBtu Natural Gas)
Non-Income Eligible Residential							
EnergyWise	430,783	18,769	1,585	476,550	20,869	-45,766	-2,101
Energy Star® HVAC	395,783	24,070	2,756	667,485	38,345	-271,702	-14,275
EnergyWise Multifamily	132,358	7,451	3,600	148,675	8,633	-16,317	-1,182
Home Energy Reports	84,193	84,193	137,092	93,548	93,548	-9,355	-9,355
Residential New Construction	59,715	3,363	260	85,272	4,445	-25,557	-1,082
Non-Income Eligible Residential SUBTOTAL	1,102,833	137,846	145,293	1,471,530	165,840	-368,697	-27,994
Income Eligible Residential							
Single Family - Income Eligible Services	197,048	9,852	988	201,104	10,055	-4,056	-203
Income Eligible Multifamily	246,236	13,257	2,835	315,545	14,399	-69,309	-1,142
Income Eligible Residential SUBTOTAL	443,284	23,110	3,823	516,649	24,454	-73,365	-1,344
Commercial & Industrial							
Large Commercial New Construction	709,884	47,660	85	437,398	27,631	272,486	20,030
Large Commercial Retrofit	1,199,268	128,600	56	1,455,776	187,283	-256,508	-58,682
Small Business Direct Install	82,530	5,502	153	48,861	4,886	33,668	616
Commercial & Industrial Multifamily	118,315	7,937	656	141,869	9,444	-23,554	-1,507
Commercial & Industrial SUBTOTAL	2,109,997	189,700	950	2,083,905	229,243	26,092	-39,543
TOTAL	3,656,113	350,655	150,066	4,072,084	419,537	-415,971	-68,882

Notes:

- (1) Participants can participate in more than one program, for example Home Energy Reports and EnergyWise.
- (2) Planned 2022 participation takes into account net-to-gross and estimates unique participation by taking into account 2021 unique customer accounts to savings ratios. Therefore the number of planned measures may be more than the planned participants. For measure counts please view the widgets tables at the end of the Residential and C&I text sections. Table G-7 no longer includes a comparison to the previous year's participation. Due to the way unique participation is calculated it is not possible to compare year-over-year results.

**Table G-8A - EERMC 1-3-2
National Grid
2022 Gas PIM Benefits, Allocations, and Categorization (\$000)**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
	Natural Gas Benefits		Utility NEIs	Electric Capacity				Electric Energy				Non-Electric and Non-Gas			Societal				
	Natural Gas	Natural Gas DRIPE	Utility NEIs	Summer Generation	Capacity DRIPE	Trans	Dist	Reliability	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	Electric Energy DRIPE	Oil	Other Resource	Non Resource	Carbon	NOx	Economic
Non-Income Eligible Residential																			
EnergyWise	\$3,712	\$30	\$0	\$52	\$91	\$68	\$67	\$5	\$42	\$48	\$43	\$37	\$32	\$0	\$46	\$2,591	\$2,299	\$281	\$7,859
Energy Star® HVAC	\$3,353	\$38	\$0	\$7	\$18	\$9	\$9	\$1	-\$6	-\$6	\$4	\$3	-\$2	\$0	\$171	\$507	\$2,513	\$263	\$2,788
EnergyWise Multifamily	\$1,139	\$12	\$0	\$7	\$15	\$9	\$9	\$1	\$1	\$1	\$5	\$4	\$3	\$0	\$39	\$3,553	\$802	\$87	\$2,185
Home Energy Reports	\$652	\$23	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$808	\$58	\$422
Residential New Construction	\$519	\$5	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7	\$501	\$346	\$39	\$102
Non-Income Eligible Residential SUBTOTAL	\$9,375	\$108	\$0	\$66	\$124	\$85	\$85	\$6	\$37	\$42	\$52	\$45	\$32	\$0	\$262	\$7,153	\$6,769	\$728	\$13,355
Income Eligible Residential																			
Single Family - Income Eligible Services	\$1,732	\$16	\$109	\$22	\$45	\$29	\$29	\$2	\$26	\$31	\$17	\$15	\$21	\$0	\$0	\$8,286	\$1,180	\$131	\$5,677
Income Eligible Multifamily	\$2,141	\$22	\$87	\$4	\$12	\$5	\$5	\$1	\$0	\$0	\$3	\$2	\$2	\$0	\$47	\$11,941	\$1,443	\$162	\$4,114
Income Eligible Residential SUBTOTAL	\$3,873	\$38	\$196	\$26	\$56	\$35	\$34	\$3	\$27	\$31	\$20	\$18	\$23	\$0	\$47	\$20,227	\$2,623	\$294	\$9,791
Commercial & Industrial																			
Large Commercial New Construction	\$5,160	\$60	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$43	\$6,583	\$4,699	\$505	\$4,072
Large Commercial Retrofit	\$9,416	\$189	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$35	\$15,530	\$9,064	\$863	\$10,693
Small Business Direct Install	\$638	\$8	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$262	\$0	\$550	\$59	\$561
Commercial & Industrial Multifamily	\$964	\$13	\$0	\$4	\$12	\$5	\$5	\$1	\$0	\$0	\$3	\$2	\$2	\$0	\$23	\$3,581	\$794	\$84	\$1,628
Commercial & Industrial SUBTOTAL	\$16,178	\$270	\$0	\$4	\$12	\$5	\$5	\$1	\$0	\$0	\$3	\$2	\$2	\$0	\$364	\$25,694	\$15,108	\$1,510	\$16,955
Grand Total	\$29,425	\$416	\$196	\$96	\$192	\$125	\$124	\$10	\$64	\$74	\$74	\$64	\$58	\$0	\$673	\$53,074	\$24,500	\$2,532	\$40,101
Included in PIM? (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N
Percent Application in PIM	100%	100%	100%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	0%	0%	0%	0%
Category	Gas Utility System Benefits	Gas Utility System Benefits	Gas Utility System Benefits	Resource Benefits	Resource Benefits	Resource Benefits	Resource Benefits	NA	NA	NA	NA								

Notes
From 2022 Benefit-Cost Model, reflects benefits in Table G-6

**Table G-8B - EERMC 1-3-2
National Grid
2022 Gas PIM Costs**

	(1)	(2)	(3)
	Costs (\$)		
	Eligible Spending Budget from Table G-3	Regulatory Costs	Total Costs for PIM Calculations
Non-Income Eligible Residential SUBTOTAL	\$13,477,982	\$365,844	\$13,843,826
Income Eligible Residential SUBTOTAL	\$8,388,639	\$365,844	\$8,754,483
Commercial & Industrial SUBTOTAL	\$8,331,618	\$365,844	\$8,697,462
Included in PIM? (Y/N)	Y	Y	Y

Notes

Source is Table G-2 and G-3. Regulatory costs allocated equally to each sector.

Table G-8C - EERMC 1-3-2
National Grid
2022 Gas PIM and SQA

Sector PI = min(Payout Cap(j), (Actual Net Benefits* Design Payout Rate(g) * Payout Rate Adjustment(i)))

Sector	Planned Eligible Benefits		Planned Eligible Costs	Planned Eligible Net Benefits (4)	Design Performance Achievement	Design Performance Payout	Design Payout Rate	Design Payout Rate Thresholds	Payout Rate Adjustments	Payout Cap	Service Quality Metric
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
	100% Gas Utility System Benefits	50% Resource Benefits	Eligible Spending Budget + Regulatory Costs	=(a)+(b)-(c)	Net benefits at which design incentive pool is achieved	Set by PUC	=(f)/(e)	Achievement levels at which the Payout Rate Adjustments in (i) will be applied—Set by PUC	Factor to adjust Design Payout Rate for if final program achievement fall within the ranges in (h)—Set by PUC	=1.25*(f)	Yes if (d) ≤ 0; No if (d) > 0
										Cap on sector payout regardless of achievement in sector	See Service Quality Table
Non-Income Eligible Residential	\$9,482,537	\$418,306	\$13,843,826	-\$3,942,983	\$2,000,000	\$500,000	25%	a. Achievement < 25%	a. 0.0 b. Achievement/100 + 0.1	\$625,000	Yes
Income Eligible Residential	\$4,106,321	\$160,299	\$8,754,483	-\$4,487,863	\$2,000,000	\$500,000	25%	b. 25% ≤ Achievement < 50% c. 50% ≤ Achievement < 75% d. 75% ≤ Achievement • Spending > Planned Eligible Costs	c. Achievement/100 + 0.25 d. 0.0 • See Boundary Rules	\$625,000	Yes
Commercial & Industrial	\$16,447,869	\$198,553	\$8,697,462	\$7,948,960	\$7,948,960	\$1,700,000	21%			\$2,125,000	No

Sector SQA = Maximum Service Adjustment(e) * Service Achievement Scaling Factor(g)

	Planned Eligible Benefits		Planned Eligible Costs	Design Service Achievement	Maximum Service Adjustment	Service Adjustment Thresholds	Service Achievement Scaling Factors	Achievement Cost Adjustment
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	100% Gas Utility System Benefits	50% Resource Benefits	Eligible Spending Budget + Regulatory Costs	=(a)+(b)	Maximum downward adjustment to earned incentive	Adjusted Achievement levels at which the Service Adjustments in (e) will be applied; adjustment is calculated in (h)	Factor to scale program achievement that fall within the ranges in (f)	Actual-cost-based adjustment factor applied to achievement. Result is if the difference between achievement and cost variances are greater than 5%, the Actual Achievement will be adjusted for use in
Non-Income Eligible Residential	\$9,482,537	\$418,306	\$13,843,826	\$9,900,843	\$386,750	a. Adjusted Achievement < 65%	a. 0.0 b. (95-Adjusted Achievement)/30 c. 0.0	Performance Variance = "Actual Benefits" / "Design Achievement" - "Spending" / "Planned Eligible Cost"
Income Eligible Residential	\$4,106,321	\$160,299	\$8,754,483	\$4,266,620	\$276,250	b. 65% ≤ Adjusted Achievement < 95%		If the absolute value (Performance Variance) ≤ 0.05, Then Adjusted Achievement = Actual Achievement Else Adjusted Achievement = Actual Achievement * (1+ Performance Variance)
Commercial & Industrial	\$16,447,869	\$198,553	\$8,697,462	N/A	N/A	c. 95% ≤ Adjusted Achievement		

**Table G-9 - EERMC 1-3-2
National Grid
Revolving Loan Fund Projections**

Large C&I Revolving Loan Fund

(1)	Total Loan Fund Deposits Through 2021	\$ 3,590,440
(2)	Current Loan Fund Balance	\$ 2,398,955
(3)	Projected Loans by Year End 2021	\$ 587,000
(4)	Projected Repayments by Year End 2021	\$ 213,986
(5)	Projected Year End Loan Fund Balance 2021	\$ 2,025,941
(6)	2022 Fund Injection	\$ -
(7)	Projected Loan Fund Balance, January 2022	\$ 2,025,941
(8)	Projected Repayments throughout 2022	\$ 402,925
(9)	Estimated Loans in 2022	\$ 1,200,000
(10)	Projected Year End Loan Fund Balance 2022	\$ 1,228,866

Notes

- 1 Funding injections since loan funds began. Net of any adjustments.
- 2 Current Loan Fund Balance is through July 2021
- 3 Projected Loans by Year End 2021 is estimated based on current commitments
Projected Repayments by Year End 2021 is estimated based on projected loans
- 4 by year end and repayment schedules
- 5 Equal to (2) - (3) + (4)
- 6 Fund Injection, as budgeted on G-2
- 7 Equal to (5) + (6)
- 8 Assumption based on average repayments over 12 months; repayments accumulate over time and may vary widely.

Table G-10 - EERMC 1-3-2
National Grid
Rhode Island Gas Energy Efficiency 2007 - 2022
\$(000)

Gas	2007 ⁽⁴⁾	2008	2009	2010	2011 ⁽⁵⁾	2012	2013 ⁽⁶⁾	2014	2015	2016	2017	2018	2019	2020 ⁽⁷⁾	2021 ⁽⁸⁾	2022 ⁽⁸⁾
Energy Efficiency Budget (\$Million) ⁽¹⁾	-	\$7.3	\$7.6	\$4.8	\$7.3	\$13.7	\$19.5	\$23.5	\$24.5	\$27.7	\$29.7	\$28.1	\$31.6	\$34.3	\$35.0	\$33.2
Spending Budget (\$Million) ⁽²⁾	-	\$6.6	\$6.1	\$4.5	\$6.2	\$12.9	\$17.9	\$21.8	\$22.4	\$25.0	\$27.8	\$26.2	\$29.2	\$31.6	\$32.4	\$30.2
Actual Expenditures (\$Million) ⁽³⁾	-	\$7.4	\$6.3	\$5.5	\$4.9	\$13.3	\$19.6	\$21.5	\$21.5	\$24.6	\$29.1	\$28.8	\$29.5	\$24.6		
Incentive Percentage ⁽¹²⁾	-	4.4%	4.4%	4.4%	4.4%	4.4%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	NA	NA
Target Incentive	-	\$288,734	\$266,980	\$199,743	\$274,460	\$570,382	\$898,285	\$1,089,700	\$1,119,800	\$1,251,654	\$1,387,550	\$1,309,076	\$1,460,570	\$1,578,601	\$1,700,000	\$1,700,000
Earned Incentive	-	\$288,734	\$262,121	\$231,310	\$239,863	\$586,036	\$968,229	\$1,362,108	\$1,387,079	\$1,496,869	\$1,633,531	\$1,541,255	\$1,580,119	\$347,732		
Annual MMBtu Energy Savings Goal Achieved (%)		109%	139%	127%	117%	99%	109%	124%	111%	106%	113%	120%	104%	71%		
System Benefits Charge (\$/therm) - all non-exempt customers ⁽¹¹⁾	\$0.0071	\$0.0107	\$0.0150	\$0.0150	\$0.0411	\$0.0384	\$0.0417	-	-	-	-	-	-	-	-	-
Residential System Benefits Charge (\$/therm)	-	-	-	-	-	-	-	\$0.0600	\$0.0781	\$0.0748	\$0.0888	\$0.0869	\$0.0715	\$0.1011	\$0.0871	\$0.1137
C&I System Benefits Charge (\$/therm)	-	-	-	-	-	-	-	\$0.0492	\$0.0637	\$0.0487	\$0.0726	\$0.0671	\$0.0420	\$0.0704	\$0.0596	\$0.0748
Annual Cost to 846 Therm/year Residential Customer w/o tax ⁽⁹⁾	\$6.04	\$9.05	\$12.69	\$12.69	\$18.28	\$32.49	\$35.28	\$50.76	\$66.07	\$63.28	\$75.12	\$73.52	\$60.49	\$85.53	\$73.69	\$96.19
Annual Cost to 846 Therm/year Residential Customer w/tax ⁽¹⁰⁾	\$6.23	\$9.33	\$13.08	\$13.08	\$18.85	\$33.49	\$36.37	\$52.33	\$68.11	\$65.24	\$77.44	\$75.79	\$62.36	\$88.18	\$75.97	\$99.16

Notes:

- (1) Energy Efficiency Budget includes total expenditures and commitments. Includes all demand side management program-related expenses, including rebates, administration and general expenses, evaluation, commitments for future years and Company incentive.
- (2) Prior to 2017, Spending Budget Eligible for Shareholder Incentive includes: Implementation, Administration, General, and Evaluation Expenses; excludes EERMC and OER Costs, Commitments, Copays, and Outside Finance Costs. Beginning in 2017, Outside Finance Costs were also included. Beginning in 2018 Pilot expenses were also excluded. Beginning in 2019 ConnectedSolutions expenses and assessment were also excluded.
- (3) Actual Expenditures is actual spend during calendar year. Includes expenditures and commitments. Includes all demand side management program-related expenses, including rebates, administration and general expenses, evaluation, commitments for future years and Company incentive.
- (4) Gas programs began during July 2007 and were not reported on separately that year since programs were still in development. The 2007 gas programs are included in 2008 reporting. Systems Benefit Charge shown for 2007 is the weighted average of \$0.063 per decatherm from January 1, 2007 - June 30, 2007 and \$0.107 per decatherm from July 1, 2007 through December 31, 2008.
- (5) On July 25, 2011 the Commission ordered that National Grid could increase the gas System Benefits Charge from \$0.15 to \$0.411 per decatherm for the period of August 1, 2011 through December 31, 2011. Annual cost represents 7 months usage (632 therms) at \$0.015 per therm and 5 months usage (214 therms) at \$0.0411 per therm.
- (6) In the Company's gas and electric rate cases in docket 4323, the PUC approved the uncollectibles gross-up in the electric EE Program Charge effective February 1, 2013, and a new rate applicable to the gross-up of the gas EE Program Charge, effective February 1, 2013.
- (7) 2021 values are planned.
- (8) 2022 values are proposed.
- (9) Reflects the annual cost excluding Gross Earnings Tax.
- (10) Reflects the annual cost including Gross Earnings Tax.
- (11) The Gas EE Program Charge was uniform for all customers until 2014, at which time the Company proposed and the PUC approved individual factors for the residential and C&I sectors.
- (12) Incentive percentage not applicable for 2022 due to new performance incentive mechanism developed for the 2022 Annual Plan. See Section 11 of the Main Text of the 2022 Annual Plan for additional details.

EERMC 1-4
Portfolio-Level Planning

Request:

Please provide a detailed description of the planning thought process that was used to arrive at the specific levels of program activity proposed in the Provisional Plan filed on October 8th compared to what was proposed in the 2022 EE Plan filed on October 1st.

Response:

The PUC directed the Company to file a Provisional Plan in which the funding previously proposed for RI Grows, LLC's CHP project was reallocated to alternate budgets. When reallocating the funds, the Company felt it was most appropriate to reallocate all funds to the commercial and industrial (C&I) electric sector. Please see the Company's responses to Division Data Requests 2-10, 2-11, 2-12, 2-13, and 2-14 for a detailed description of the Company's thought process in reallocating the funds.

EERMC 1-5
Portfolio-Level Planning

Request:

Table E-7 in Attachment 5 of the Provisional Plan showed no change to the number of C&I participants (3,005) from reallocating planned incentives for the RI Grows CHP project to other measures. Please provide an estimate of impacts on number of C&I participants for the \$9,154,400 million dollars of incentive spend reallocated from the RI Grows CHP project to other measures in the Provisional Plan.

Response:

The Company estimates that the Provisional Plan will increase the number of unique C&I participants by 110 compared with the original filing, which included the RI Grows CHP project.

EERMC 1-6
Program Planning

Request:

Please provide the underlying quantitative analyses used to develop the cost and savings associated with the \$14,398,268 million incentive dollars of custom electric savings and \$2,269,396 million incentive dollars of custom gas savings in the C&I sector for both C02a Design 2000plus and C03a Energy Initiative core initiatives.

Response:

The Company conducted the following series of quantitative analyses to develop the cost and savings associated with the custom electric and gas savings in the C&I sector. The Company:

1. Applied the incentive levels and gross savings quantities in the January 2021 compliance filing as a starting point.
2. Applied updated evaluation, monitoring, and verification (EM&V) impact factors. Custom M&V impacts decreased savings by 39,742 net lifetime MWh, including 27,412 for lighting measures and 12,329 for non-lighting measures. (This does not capture changes to baselines.)
3. Reviewed the gross savings and costs from recent years (primarily 2018 to 2020) to account for recent trends in savings and unit costs.
4. Adjusted gross savings and incentives to account for planned activities.
5. In the Provisional Plan, added 33% to all custom electric incentive levels except lighting, street lighting, comprehensive design, and Retrofit HVAC.¹ This was assumed to result in a 20% increase in savings across all measures.

¹ Retrofit HVAC incentives 11% and savings increased 3%.

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Program Planning

Planning Adjustments (Changes in Provisional Plan vs Compliance Filing)

Electric Retrofit Measure	Gross Annual kWh	Net Lifetime MWh excl. M&V	Incentive (\$/kWh)	Budget
Lighting - Custom	-5,293,000	-44,191	\$0.00	-\$1,795,830
Custom: SEM	459,260	1,378	\$0.03	\$13,778
Refrigeration - Custom	399,066	3,054	\$0.15	\$354,749
Compressed Air - Custom	343,548	701	\$0.04	\$91,113
Process- Custom	310,299	2,058	\$0.07	\$132,488
Custom: Street Lighting	150,000	1,927	\$0.00	\$31,500
Motors & VFD - Custom	129,628	860	\$0.23	\$114,234
Other - Custom	38,280	234	\$0.10	\$34,452
HVAC - Custom	16,000	73	\$0.05	\$247,477

Electric New Construction Measure	Gross Annual kWh	Net Lifetime MWh excl. M&V	Incentive (\$/kWh)	Budget
Lighting - Custom	-132,500	-1,477	\$0.07	\$8,025
HVAC - Custom	2,218,508	19,649	\$0.08	\$1,635,116
Compressed Air - Custom	399,370	3,537	\$0.11	\$399,370
Process - Custom	367,368	3,254	\$0.09	\$301,242
Refrigeration - Custom	105,242	932	\$0.13	\$122,080
Motors & VFD - Custom	80,750	715	\$0.06	\$44,413
Other - Custom	37,880	268	\$0.11	\$37,880
Comprehensive Design - Custom	0	0	\$0.00	\$0

Gas Measure	Gross Annual MMBTU	Net Lifetime MMBTU	Incentive (\$/MMBTU)	Budget
Retrofit: Custom: General	-8,200	-65,600	\$0.00	-\$132,102
New Construction: Custom	25,560	434,526	\$0.25	\$328,454
Retrofit: Custom: SEM	3,580	12,399	\$0.00	\$107,453
Retrofit: Custom: RCx	2,314	9,256	\$0.00	\$34,710

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Program Planning

Planning Adjustments (Explanation of Changes)

Electric Retrofit Measure	Explanation
Lighting - Custom	Trend, not an adjustment for planned activities
Custom: SEM	Actual pipeline - SEM ("CEI") demonstration initiative continued into 2022
Refrigeration - Custom	ESPO (via Energy Smart Grocer contract)
Compressed Air - Custom	Small Industrial Initiative
Process- Custom	Small Industrial Initiative
Custom: Street Lighting	Actual pipeline (long-term projects = predictable savings)
Motors & VFD - Custom	Trend (incentive in tool was \$0.14/kWh vs \$0.28/kWh in recent years)
Other - Custom	
HVAC - Custom	Note: Compliance filing target well above trend. Minor net changes vs compliance filing. Explanation: Avg 2018-2020: 1,600,978. Planned increase in savings due to: ESPO (1,000,000 kWh), EMS/Controls Outreach (600,000 kWh), HVAC Accelerated Retirements (356,000 kWh), Small Industrial (60,000 kWh), Increased incentives for target projects (100,000 kWh). Moderate increase in incentive amount in Provisional Plan.

Electric New Construction Measure	Explanation
Lighting - Custom	EMS/Controls Outreach (1,000,000 kWh), Small Industrial (120,000 kWh)
HVAC - Custom	
Compressed Air - Custom	
Process - Custom	
Refrigeration - Custom	
Motors & VFD - Custom	Trend; PLP+ changes: increased savings by 150,000 gross kWh and \$0.07/kWh
Other - Custom	
Comprehensive Design - Custom	No adjustment

Gas Measure	Explanation
New Construction: Custom	Trend, not an adjustment for planned activities. Cost increased 2%.
Retrofit: Custom: SEM	Actual pipeline - SEM ("CEI") demonstration initiative continued into 2022
Retrofit: Custom: RCx	RI schools, Industrial customers 200-400 kW
Retrofit: Custom: General	Reduce budget to maintain 5% cap (primarily from Upstream Food and Custom). Initial forecast was 95,000 gross MMBTU.

EERMC 1-7
Program Planning

Request:

Please provide a detailed description of several potential methods for verifying eligibility for the proposed moderate income offering which would be compatible with National Grid's proposed program design.

Response:

National Grid has considered four pathways for income verification.

- 1) The first would be to partner with one of the Community Action Partnership Agencies (CAP) to do the income verification of moderate income customers.
- 2) The second is to use a private company that could provide the income verification services.

There are benefits and drawbacks with either option. The first would require customers to go to the CAP in person which could take time during a workday. The benefit with using a CAP is that customers who qualify for income eligible services could be immediately eligible for a broader suite of services. With the private company model, verification could be accomplished online, near instantaneously. If the customer does qualify for income eligible services, they would be referred to their closest CAP agency.

For the RGGI moderate income offering the Company investigated:

- 3) Online notarization of income levels
- 4) Customer self-attestation of income levels

The online notarization method was not pursued for RGGI because of time for deployment of the offering. OER selected the self-attestation method to income qualify RGGI moderate income customers to minimize barriers and facilitate participation.

The Company is proposing using the second income verification pathway for moderate income qualification so customers that qualify for income eligible services can be referred to the appropriate CAP. The income verification also reduces potential abuse of the moderate income offering.

Redacted
EERMC 1-8
Program Planning

Request:

National Grid’s October 21, 2021 EERMC meeting presentation on their Provisional Plan notes that they intend to use incremental funds on a new vendor-driven initiative for an “HVAC early retirements program”. Please provide details on programmatic spending including vendor costs, total savings, and customer incentive by BCR measure, as well as a high-level description of how this program will function and what target markets/customer segments will be served.

Response:

Budget and Savings: The table below details spending and savings estimates provided by the vendor that proposed the HVAC Accelerated Replacements initiative, which the Company has proposed to include in the final Annual Energy Efficiency Plan for 2022.

Initial Proposal - Aug 20, 2021:			
	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
Units	74	130	227
Gross Annual kWh	355,576	622,258	1,088,952
Gross Lifetime MWh	1,778	3,111	5,445
Incentives	\$193,440	\$338,520	\$592,410
█	█	█	█
█	█	█	█
Incentive (\$/gross lifetime MWh)	\$109	\$109	\$109
█	█	█	█
Updated Proposal - Sept 27, 2021:			
	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
Incentives	\$107,880	\$188,790	\$330,383
Incentive (\$ / Gross Lifetime MWh)	\$61	\$61	\$61

Note that the lifetime MWh savings are gross, not net, because no EM&V impact factors have been applied to the savings calculations.

Incentives and Savings by Measure: The vendor’s proposal included the table below detailing specific measures, incentives, and gross savings.

Redacted
EERMC 1-8, page 2
Program Planning

HVAC Measure	Incentive (\$/Ton)	Gross Annual kWh/Ton	Assumed RUL (years)	Lifetime kWh/Ton	Lifetime \$/kWh
AC <5.4 Tons	\$100	355	5	1,775	\$0.06
AC 5.4-11.3 Tons	\$100	349	5	1,745	\$0.06
AC 11.3-20 Tons	\$100	419	5	2,095	\$0.05
AC 20-63.3 Tons	\$100	362	5	1,810	\$0.06
AC >63.3 Tons	\$100	366	5	1,830	\$0.05
HP <5.4 Tons	\$300	668	5	3,340	\$0.09
HP 5.4-11.3 Tons	\$300	304	5	1,520	\$0.20
HP 11.3-20 Tons	\$300	479	5	2,395	\$0.13
HP >20 Tons	\$300	112	5	560	\$0.54

Overview of Savings Calculation Methodology: This initiative would be an extension of the Upstream HVAC initiative and implemented by the same vendor. Under the vendor’s proposed approach, savings methodologies from existing TRM entries for commercial HVAC will be used to develop Accelerated Replacement measure savings. These savings calculations are based on existing condition baselines and a remaining useful life (RUL) that is approximately 1/3 of the expected useful life (EUL) of the equipment. Existing condition baseline efficiencies are determined by the code requirements of the vintage of equipment. The measures proposed include commercial unitary AC and heat pumps.

Additional savings applied to the final 2/3 of the measure’s expected useful life would be calculated using the new construction baseline (i.e. the savings will match those currently being claimed through the RI Midstream HVAC initiative.

Target Markets: The measures that would be supported by the proposed HVAC Accelerated Replacement initiative are used in a wide cross-section of buildings. This offering is designed to benefit all C&I customers, including schools, hospitals, and small businesses, by helping them upgrade to high-efficiency HVAC systems sooner than they otherwise would.

Other Notes: National Grid received the vendor’s initial proposal on August 20, 2021, as the Company was developing its final Annual Energy Efficiency Plan for 2022. A revised proposal on September 27, 2021, substantially reducing the proposed incentive costs to better align with C&I portfolio-wide averages in the Plan.

EERMC 1-9
Program Planning

Request:

Please provide the underlying quantitative analyses used to develop the costs (TRC, Incentive, and Customer Cost) associated with the “Participant” measure in the following programs:

- a. EnergyWise Multifamily Electric (Measure ID E21RESEWMF0002)
- b. Income Eligible Multifamily Electric (Measure ID E21IEMF0001)
- c. EnergyWise Multifamily Gas (Measure ID G21RESEWMF0003)
- d. Income Eligible Multifamily Gas (Measure ID G21IEMF0013)

Response:

To develop the costs associated with the “Participant” measure, the Company took an average of prior years’ TRC, total incentive and total participants. The Company then adjusted according to changes in the planned measure quantities. For each of these programs the Company increased the quantity of custom measures and used that average TRC and total incentive per quantity to adjust the per participant costs. This approach was taken for all four programs listed above.

EERMC 1-10
Program Planning

Request:

Please provide the underlying quantitative analyses used to develop the savings associated with the “Custom” measure by measure type and end use in the following programs:

- a. EnergyWise Multifamily Electric (Measure ID E21RESEWMF0002)
- b. Income Eligible Multifamily Electric (Measure ID E21IEMF0002)
- c. EnergyWise Multifamily Gas (Measure ID G21RESEWMF0002)
- d. Income Eligible Multifamily Gas (Measure ID G21IEMF0004)

Response:

To develop the savings associated with the “Custom” measure by measure type and end use, the Company took into consideration that there are multiple different measures captured under the “Custom” umbrella. The Company determined an average savings per “Custom” measure based on prior years’ quantities and savings achieved. This approach was taken for all four programs listed above.

EERMC 1-11
Program Planning

Request:

For each of the following measures, please break out the planned quantity by customer type (owner-occupied market rate, owner-occupied moderate income, and landlord-owned).

- a. EnergyWise Single Family Electric – Wx-Oil (E21RESEWSF0009)
- b. EnergyWise Single Family Electric – Wx Elec – Elec Heat Only (E21RESEWSF0010)
- c. EnergyWise Single Family Gas – Weatherization (G21RESEWSF0002)
- d. Income Eligible Single Family Electric – AMPWx DelFuel (E21IESF0002)
- e. Income Eligible Single Family Electric – AMPWx Elec (E21IESF0003)
- f. Income Eligible Single Family Gas – WEATHER (G21IESF0002)

Response:

The Company did not break out the measures listed in parts a-f into owner-occupied market rate, owner-occupied moderate income, and landlord-owned categories. Customers are served based on interest in the program. Planned numbers for weatherization by fuel type are:

EnergyWise:

- a. 1,778
- b. 219
- c. 2,024

The landlord incentive was used by 9% of EnergyWise weatherization participants in 2020.

Income Eligible Single Family:

- d. 573
- e. 36
- f. 704

EERMC 1-12
Program Planning

Request:

Please provide a detailed accounting of the number of audits and weatherization projects in National Grid's pipeline for each of the following programs:

- a. EnergyWise Single Family (Electric and Gas)
- b. EnergyWise Multifamily (Electric and Gas)
- c. Income Eligible Single Family (Electric and Gas)
- d. Income Eligible Multifamily (Electric and Gas)

Response:

- a. There are 951 customers in the EnergyWise Single Family audit pipeline and 2,122 projects with signed contracts in the weatherization pipeline.
- b. There are no audits in the pipeline that are currently expected to be delivered in 2022 for the EnergyWise Multifamily Program. There are four weatherization projects in the pipeline that are currently scheduled to be delivered in 2022.
- c. There are 175 customers in the Income Eligible Single Family audit 2021 pipeline. There are no weatherization projects scheduled in the pipeline at this time.
- d. There are no audits or weatherization projects scheduled in the 2022 pipeline for the Income Eligible Multifamily program at this time.

EERMC 1-13
Program Planning

Request:

During planning, National Grid has indicated that Retro-commissioning is spread across several line items in the BCR models. Please provide a full accounting of incentive spend and savings for any and all BCR measure lines that include any form of retro-commissioning and/or Energy Management System savings.

Response:

The *2021 Energy Efficiency Program Plan Technical Reference Manual* defines Energy Management System as “the installation of a new building energy management system (EMS) or the expansion of an existing energy management system for control of non-lighting electric and gas end-uses in an existing building on existing equipment.”¹

Retro-Commissioning (RCx) is a broad term that can include a wide range of activities to improve the performance of a building’s existing equipment and systems. For purposes of this response, retro-commissioning measures includes tuning, repairs, maintenance, and reprogramming of HVAC, refrigeration, compressed air, and steam systems (including controls) that are incentivized through the Equipment & Systems Performance Optimization (ESPO) initiative.

The tables below show a full accounting of Electric and Gas incentive spend and savings for any and all BCR measures lines that include any form of retro-commissioning (RCx) or Energy Management Systems (EMS).

Electric Measures	Gross Annual kWh	Net Lifetime MWh	Budget
C02a Design 2000plusCompressed Air - Custom	2,396,222	21,223	\$1,078,300
C02a Design 2000plusHVAC – Custom	5,741,334	50,850	\$3,502,214
C02a Design 2000plusRefrigeration – Custom	631,451	5,593	\$322,040
C03a Energy InitiativeEI HVAC	1,550,615	16,457	\$271,560
C03a Energy InitiativeCompressed Air - Custom	1,161,289	2,370	\$197,419
C03a Energy InitiativeHVAC – Custom	3,900,978	17,910	\$1,995,896
C03a Energy InitiativeRefrigeration – Custom	1,194,398	9,139	\$704,695

¹ 2021 Energy Efficiency Program Plan Technical Reference Manual. October 2020. Pg. M-626.
[http://www.ripuc.ri.gov/eventsactions/docket/5076-NGrid-Energy%20Efficiency-TRM%20\(PUC%2010-23-2020\).pdf](http://www.ripuc.ri.gov/eventsactions/docket/5076-NGrid-Energy%20Efficiency-TRM%20(PUC%2010-23-2020).pdf)

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Program Planning

Gas Measures	Gross Annual MMBTU	Net Lifetime MMBTU	Budget
Large Commercial New ConstructionCustom	51,059	433,470	\$650,997
Large C&I RetrofitControls	18,023	294,135	\$396,506
Large C&I RetrofitCustom: RCx	6,400	24,148	\$96,000
Large C&I RetrofitPrescriptive Steam Traps	8,871	57,912	\$93,149
Large C&I RetrofitCustom: General	86,800	655,025	\$1,398,348

EMS and RCx savings are not explicitly broken out within the Company’s planning tools. Within the Electric Portfolio, from 2018 to 2020, EMS and HVAC controls accounted for 49 percent of total savings within the BCR measure lines above pertaining to HVAC.

To account for RCx activities proposed in the 2022 Plan, the Company added the following incremental quantities within the Large C&I Retrofit program:

- Custom HVAC: 1,000,000 gross annual kWh
- Prescriptive HVAC: 200,000 gross annual kWh
- Custom Refrigeration: 200,000 gross annual kWh
- Custom: RCx: 2,314 gross annual MMBTU

EERMC 1-14
Program Planning

Request:

Please provide a detailed accounting of National Grid’s planned small business weatherization and building envelope incentive spend and savings, inclusive of additional outside funding of RGGI dollars allocated by OER.

Response:

During the planning process the Company assumed that 1/3 of the \$1,100,000 RGGI allocation, or \$330,000, would be spent in 2021, and 2/3 of the \$1,100,000 RGGI funding or \$770,000 would be spent in 2022.

The Company’s assumptions for RGGI spending and savings are shown in Table 1. Electric and natural gas savings were added to the appropriate areas in the Company’s planning tools.

Table 1

		Savings in 2022	Planning Unit
Electric	\$ 154,000.00	376,013	gross kWh
Natural Gas	\$ 423,500.00	3,529	gross MMBtu
Delivered Fuels	\$ 192,500.00	1,604	gross MMBtu

The Company’s assumptions for System Benefit Charge (SBC) funded weatherizations are shown in Table 2.

Table 2

		Savings in 2022	Planning Unit
Electric	\$ 50,000.00	121,951	gross kWh
Natural Gas	\$ 175,000.00	1,458	gross MMBtu

EERMC 1-14, page 2
Program Planning

The total for both funding streams are shown in Table 3.

Table 3

		Savings in 2022	Planning Unit
Electric	\$ 204,000.00	497,964	gross kWh
Natural Gas	\$ 598,500.00	4,987	gross MMBtu
*Delivered Fuels	\$ 192,500.00	1,604	gross MMBtu

*Delivered fuel projects are funded entirely by RGGI funds

EERMC 1-15
Program Planning

Request:

Please share a detailed forecast of 2022 planned savings and incentives for all Strategic Energy Management Plans National Grid has by customer segment outlined in Attachment 2 of the 2022 EE Plan (Colleges and Universities, Commercial and Industrial, Chain Restaurants, Municipal and State Buildings). If National Grid is unable to disclose the details at the level of customer segment for customer privacy reasons, please provide aggregate Strategic Energy Management Plan savings and incentives for 2022.

Response:

Please see Tables 1 and 2 below for a detailed forecast of the 2022 planned savings and incentive for all Strategic Energy Management Plans by customer segment.

Table 1: SEMP

Segment	2022 Electric Forecast (kWh)	2022 Gas Forecast (Therms)	2022 Electric Incentive Forecast	2022 Gas Incentive Forecast
Colleges and Universities	2,166,667	88,750	\$581,333	\$153,125
Commercial and Industrial	286,312	3,775	\$80,167	\$6,606
Chain Restaurants	400,000	7,962	\$92,000	\$12,898

Table 2: State SEMP

Segment	2022 Electric Forecast (kWh)	2022 Gas Forecast (Therms)	2022 Electric Incentive Forecast	2022 Gas Incentive Forecast
Colleges and Universities	508,980	10,494	\$127,245	\$15,740
Municipal and State Buildings	549,598	16,500	\$137,399	\$24,750
Cities and Towns	1,094,492	36,608	\$273,623	\$54,912
Quasi State Agencies and Other	246,930	11,399	\$61,732	\$17,098

EERMC 1-16
Program Planning

Request:

National Grid removed RI Grows Combined Heat and Power project from the 2022 Provisional Plan. Please confirm that no additional combined heat and power units are currently in National Grid's interconnection queue. If additional projects are in the interconnection queue but were omitted from the 2022 Provisional Plan, please provide estimated nameplate capacity, savings, incentives, and probability of completion in 2022.

Response:

The Company has not omitted any previously planned CHP projects, other than the RI Grows project, from the 2022 Provisional Plan. However, the Company currently has two 24-kW Multifamily CHP projects that are in the interconnection queue and expected to be installed in 2021. Additionally, one 24-kW Multifamily CHP project has obtained an interconnection service agreement but is currently being re-screened. In the event the project passes the screening, the Company would anticipate the CHP project to be operational by 2022.

EERMC 1-17
Program Planning

Request:

Please provide further information regarding National Grid's planned activities related to virtual audits, including planned investments in exploring additional virtual audit offerings, such as virtual pre-assessments, and any criteria by which National Grid plans to assess the available virtual auditing options to ensure the best possible virtual offerings are available to Rhode Islanders.

Response:

National Grid worked with OER in October 2021 to issue a RFI for virtual assessments. The RFI did not generate any responses. The Company currently plans to revise and re-issue the RFI in January 2022, with the goal of better understanding the cost implications of virtual assessment software and any potential increase in either savings or participation that could be expected to result from the use of virtual audit software.

Currently, customers that receive a virtual assessment are provided the same level of service as an in-person experience. The primary differences are 1) that the home inspection portion of the assessment is delivered via a customer provided device such as a smartphone, table or computer, and 2) any 'instant savings measures' (e.g. light bulbs, aerators, smart power strips) are subsequently shipped to the customer for self-installation as opposed to installed by an energy specialist during the assessment itself.

The EnergyWise program has received the ENERGY STAR[®] Partner of the Year award for 6 consecutive years, and the Company finds providing an equivalent level of service, virtually, of value to customers.

Once the costs of specific virtualization software are determined, the Company can better assess the potential cost savings and benefits of adopting this type of solution, and compare these to the potential lost customer engagement opportunities resulting from relying on these solutions as opposed to the current in-person and virtual home energy assessment approaches.

The information the Company has received on virtual pre-assessments is that in CT vendors use the pre-assessment to determine if the residence is a good candidate for weatherization. If the home does not have sufficient weatherization opportunities, then no in-person assessment is offered or provided to the customer. Currently, the Company still finds value in providing customers with assessments as an educational opportunity, and believes that there is value in

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Program Planning

documenting the age of heating, water heating, cooling equipment and appliances as a tool for creating and providing leads for other residential energy efficiency program offerings.

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Rate and Bill Impacts

Request:

Please provide updated rate and bill impact models and summary results which separately conducts each of the following analyses, for a total output of 5 updated electric rate and bill impact models and summary result sets, and 4 updated gas rate and bill impact models and summary result sets.

- a. For both electric and gas:
 - i. Separately report the rate and bill impacts associated with 1) the fully reconciling mechanism collections associated with 2021 program activity, and 2) the spending associated with planned 2022 program activity.
 - ii. Updates the bill impact analysis to reflect a customer-level load growth forecast that is consistent with the load growth assumptions used to calculate the lost revenue recovery component in future years.
 - iii. Implements all of the above.
- b. For gas only:
 - iv. Removes gas commodity costs from the revenue requirement calculation
- c. For electric only:
 - v. Please provide the underlying quantitative analysis used to calculate the Energywise SF program measure life of 5 years used in the model

Provide lifetime savings aggregated across all measures and same for annual (lifetime is

- vi. Please quantify the customer bill savings associated with delivered fuel savings resulting from electric efficiency program activity and clearly document the assumptions used to estimate these savings. Please provide these estimated savings by year in real 2020 dollars through the full analysis period of the rate and bill impacts model.

Response:

Part a.i.

Charges relating to the EE fund balance carry over are isolated and provided in Table 1 below. For electric and C&I gas, isolating these charges results in slightly negative values because there's a positive fund balance that is returned to ratepayers. For residential gas, isolating these charges results in a positive charge because there's a negative fund balance that needs to be collected from ratepayers.

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Rate and Bill Impacts

Table 1: EE Fund Balance Carry Over Charge for Electric and Gas

	Electric	Gas (Residential)	Gas (Commercial & Industrial)
EE Fund Carry Over Charge	\$(0.00067) per kWh	\$0.0388 per therm	\$(0.0134) per therm

These carry over charges were incorporated into their respective electric and gas rate and bill impacts models as a component of the pre-DSM customer rates. For the electric rate and bill impact model, a field already existed to receive a “pre-EE” charge. However, the gas rate and bill impact model did not. As a result, the model was adjusted to receive and use this input in subsequent calculations.

Table 2 depicts the electric provisional plan rate and bill impact summary tables, while

EERMC 1-18, page 3
Rate and Bill Impacts

Table 3 depicts the original gas rate and bill impact summary tables from the October 2021 filing.

EERMC 1-18, page 4
Rate and Bill Impacts

Table 4 provides a summary of the output from the electric rate and bill impacts models found in Attachment EERMC 1-18-1 where the EE fund carry over charge is incorporated into the pre-EE customer rates.

Sector	Levelized net change in rates due to 2022 Programs	Long Term Average Change in Bills		
		Non-Participants	Average Customer	Average Participant
Residential (HERs Only)	0.02%	0.02%	-0.02%	-0.04%
Residential (No HERs)	0.19%	0.19%	-0.10%	-7.03%
Residential (All Programs)	0.28%	0.28%	-0.07%	-6.81%
Income Eligible (HERs Only)	0.03%	0.03%	-0.02%	-0.04%
Income Eligible (No HERs)	0.48%	0.48%	-1.02%	-7.22%
Income Eligible (All Programs)	0.52%	0.52%	-1.04%	-6.80%
Small C&I	0.36%	0.36%	-0.26%	-6.36%
Medium C&I	0.24%	0.24%	-0.57%	-5.05%
Large C&I	0.17%	0.17%	-1.03%	-2.58%

EERMC 1-18, page 5
Rate and Bill Impacts

Table 5 provides a summary of the output from the gas rate and bill impacts model found in Attachment EERMC 1-18-2 where the EE fund carry over charge is incorporated into the pre-EE customer rates.

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Rate and Bill Impacts

Table 2: Original Electric Rate and Bill Impacts Summary Table from October 2021 Filing

Sector	Levelized net change in rates due to 2022 Programs	Long Term Average Change in Bills		
		Non-Participants	Average Customer	Average Participant
Residential (HERs Only)	0.01%	0.01%	-0.04%	-0.06%
Residential (No HERs)	0.17%	0.17%	-0.12%	-7.05%
Residential (All Programs)	0.26%	0.26%	-0.08%	-6.82%
Income Eligible (HERs Only)	0.01%	0.01%	-0.04%	-0.05%
Income Eligible (No HERs)	0.46%	0.46%	-1.04%	-7.24%
Income Eligible (All Programs)	0.50%	0.50%	-1.06%	-6.82%
Small C&I	0.34%	0.34%	-0.28%	-6.38%
Medium C&I	0.21%	0.21%	-0.60%	-5.08%
Large C&I	0.13%	0.13%	-1.06%	-2.61%

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Rate and Bill Impacts

Table 3: Original Gas Rate and Bill Impacts Summary Table from October 2021 Filing

Sector	Levelized net change in rates due to 2022 Programs	Long Term Average Change in Bills		
		Non-Participants	Average Customer	Average Participant
Residential (Model 1: HERs only)	0.02%	0.02%	0.00%	-0.01%
Residential (Model 2: All Programs Except HERs)	0.47%	0.46%	0.26%	-4.72%
Residential (Model 3: All Programs)	0.49%	0.48%	0.25%	0.15%
Income Eligible	0.77%	0.77%	-0.17%	-4.28%
Small C&I	0.33%	0.32%	0.19%	-23.55%
Large C&I	0.48%	0.47%	0.02%	-2.61%

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Rate and Bill Impacts

Table 4: Electric Rate and Bill Impacts Summary Table with EE Fund Carry Over Charge Added

Sector	Levelized net change in rates due to 2022 Programs	Long Term Average Change in Bills		
		Non-Participants	Average Customer	Average Participant
Residential (HERs Only)	0.02%	0.02%	-0.02%	-0.04%
Residential (No HERs)	0.19%	0.19%	-0.10%	-7.03%
Residential (All Programs)	0.28%	0.28%	-0.07%	-6.81%
Income Eligible (HERs Only)	0.03%	0.03%	-0.02%	-0.04%
Income Eligible (No HERs)	0.48%	0.48%	-1.02%	-7.22%
Income Eligible (All Programs)	0.52%	0.52%	-1.04%	-6.80%
Small C&I	0.36%	0.36%	-0.26%	-6.36%
Medium C&I	0.24%	0.24%	-0.57%	-5.05%
Large C&I	0.17%	0.17%	-1.03%	-2.58%

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Rate and Bill Impacts

Table 5: Gas Rate and Bill Impact Summary Table with EE Fund Carry Over Charge Added

Sector	Levelized net change in rates due to 2022 Programs	Long Term Average Change in Bills		
		Non-Participants	Average Customer	Average Participant
Residential (Model 1: HERs only)	-0.10%	-0.10%	-0.12%	-0.13%
Residential (Model 2: All Programs Except HERs)	0.35%	0.34%	0.14%	-4.83%
Residential (Model 3: All Programs)	0.37%	0.36%	0.14%	0.04%
Income Eligible	0.65%	0.65%	-0.29%	-4.39%
Small C&I	0.37%	0.36%	0.23%	-23.52%
Large C&I	0.55%	0.53%	0.09%	-2.55%

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Rate and Bill Impacts

Part a.ii.

Table 6 below provides a summary of the output from the electric rate and bill impacts models found in Attachment EERMC 1-18-3 which shows the electric provisional plan’s rate and bill impacts after substituting the original gross energy sales forecast with the net energy sales forecast used to calculate the lost revenue recovery component of future years.

Table 6: Electric Rate and Bill Impact Summary Table with Updated Customer-Level Load Growth Forecast

Sector	Levelized net change in rates due to 2022 Programs	Long Term Average Change in Bills		
		Non-Participants	Average Customer	Average Participant
Residential (HERs Only)	0.01%	0.01%	-0.04%	-0.06%
Residential (No HERs)	0.17%	0.17%	-0.12%	-7.05%
Residential (All Programs)	0.26%	0.26%	-0.08%	-6.82%
Income Eligible (HERs Only)	0.01%	0.01%	-0.04%	-0.05%
Income Eligible (No HERs)	0.47%	0.47%	-1.04%	-7.23%
Income Eligible (All Programs)	0.50%	0.50%	-1.06%	-6.82%
Small C&I	0.34%	0.34%	-0.29%	-6.47%
Medium C&I	0.21%	0.21%	-0.61%	-5.17%
Large C&I	0.12%	0.12%	-1.10%	-2.68%

The Company does not believe this component of the information request is applicable to the gas model. Relating to growth inputs, the user has the ability to enter an annual growth rate for customer counts and an annual winter and summer growth rate for each rate class. The annual growth rate for customers is used to project the customer count beyond 2022. This count is then used to determine the “Average Customer Annual Bill” portion of the “Bills after DSM Scenario” and subsequently the bill impacts for the average customer. However, the winter and summer growth rate input serves as the basis for projecting gas sales beyond 2031 before any

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Rate and Bill Impacts

DSM (projections up until 2031 come from a separate forecast workbook). The “Distribution Lost Revenue” that is calculated from the sales/volume reduction is for illustrative purposes only and does not serve any function in the model when calculating rate and bill impacts.

Part a.iii.

Table 7 below provides a summary of the output from the electric rate and bill impacts models found in Attachment EERMC 1-18-4 which shows the electric provisional plan’s rate and bill impacts after both adding the EE fund carry over charge (request a.i) and substituting the original load growth forecast with the net energy sales forecast used to calculate the lost revenue recovery component (request a.ii).

Table 7: Electric Rate and Bill Impact Summary Table with EE Fund Carry Over Charge Added and Updated Customer-Level Load Growth Forecast

Sector	Levelized net change in rates due to 2022 Programs	Long Term Average Change in Bills		
		Non-Participants	Average Customer	Average Participant
Residential (HERs Only)	0.02%	0.02%	-0.02%	-0.04%
Residential (No HERs)	0.19%	0.19%	-0.10%	-7.03%
Residential (All Programs)	0.28%	0.28%	-0.07%	-6.81%
Income Eligible (HERs Only)	0.03%	0.03%	-0.02%	-0.04%
Income Eligible (No HERs)	0.49%	0.49%	-1.02%	-7.22%
Income Eligible (All Programs)	0.52%	0.52%	-1.04%	-6.80%
Small C&I	0.36%	0.36%	-0.27%	-6.45%
Medium C&I	0.24%	0.24%	-0.58%	-5.14%
Large C&I	0.16%	0.16%	-1.06%	-2.65%

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Rate and Bill Impacts

For the gas portfolio, based off the response to a.ii above, implementing the requests in a.i and a.ii together would produce

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Rate and Bill Impacts

Table 5 in a.i.

Part b.iv.

The commodity costs displayed in the avoided cost section of the gas rate and bill impacts models are for illustrative purposes only and are not part of the rate and bill impacts calculation. To demonstrate this, a refined model is provided in Attachment EERMC 1-18-5 where all commodity cost line items in the "Yr1" tab are removed.

Table 8 provides the resulting rate and bill impacts which are identical to the original bill and impacts summary found in

EERMC 1-18, page 14
Rate and Bill Impacts

Table 3.

Table 8: Gas Rate and Bill Impacts Summary Table with Commodity Cost Line Items Removed

Sector	Levelized net change in rates due to 2022 Programs	Long Term Average Change in Bills		
		Non-Participants	Average Customer	Average Participant
Residential (Model 1: HERs only)	0.02%	0.02%	0.00%	-0.01%
Residential (Model 2: All Programs Except HERs)	0.47%	0.46%	0.26%	-4.72%
Residential (Model 3: All Programs)	0.49%	0.48%	0.25%	0.15%
Income Eligible	0.77%	0.77%	-0.17%	-4.28%
Small C&I	0.33%	0.32%	0.19%	-23.55%
Large C&I	0.48%	0.47%	0.02%	-2.61%

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Rate and Bill Impacts

Part c.v.

The aggregate EnergyWise SF electric program has lifetime net energy savings of 13,472 MWh and annual net energy savings of 2,789 MWh/year. The aggregate program's measure life was calculated by dividing lifetime savings (13,472 MWh) by annual savings (2,789 MWh/year), which equals 4.8 years. This value was then rounded up to 5 years.

Part c.vi.

The EERMC and the Company have agreed to table this request and take part in a discussion during the first quarter of calendar year 2022. The purpose will be to discuss an approach to developing an acceptable alternative model that would include the quantification of delivered fuel savings and assist the PUC in its review of bill impacts. The Company is amenable to creating the alternative model following that discussion provided that the Division takes part in the discussion and is in support of developing the alternative model and an approach. And, that unless otherwise agreed upon by the Division and the Company or directed by the PUC, the Company will continue to rely upon the current model when filing proposed annual plans and that the alternative model would be for illustrative or comparison purposes only.

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Rate and Bill Impacts

Attachment EERMC 1-18

Please see the .zip folders containing the
Excel versions of Attachments EERMC 1-18-1 through EERMC 1-18-4.

EERMC 1-19
Rate and Bill Impacts

Request:

Please produce a table showing the SBC for each fuel and each year from 2012 to 2021, and the anticipated SBC for 2022. Please calculate and include in that table the cumulative annualized growth rate (CAGR) for each SBC for the past 2, 5, and 10 years.

Response:

The following tables provide the requested information. Table 1 details historical SBC for each fuel and each year from 2012 to 2021 as well as the anticipated SBC for 2022. Table 2 details the CAGR for each SBC for the past 2, 5, and 10 years which were interpreted as 2020-2022, 2017-2022, and 2012-2022, respectively.

Table 1: Historical and Anticipated SBC from 2012 to 2022

Year	Gas Residential SBC (\$/therm)	Gas C&I SBC (\$/therm)	Electric SBC (\$/kWh)
2007	0.0071	0.0071	0.0020
2008	0.0107	0.0107	0.0020
2009	0.0150	0.0150	0.0032
2010	0.0150	0.0150	0.0032
2011	0.0411	0.0411	0.0053
2012	0.0384	0.0384	0.0059
2013	0.0417	0.0417	0.0088
2014	0.0600	0.0492	0.0091
2015	0.0781	0.0637	0.0095
2016	0.0748	0.0487	0.0108
2017	0.0888	0.0726	0.0112
2018	0.0869	0.0671	0.0097
2019	0.0715	0.0420	0.0112
2020	0.1011	0.0704	0.0132
2021	0.0871	0.0596	0.0111
2022	0.1226	0.0838	0.0164

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Rate and Bill Impacts

Table 2: 2-Year, 5-Year, and 10-Year CAGR for each SBC

Year Period	CAGR	Gas Residential SBC	Gas C&I SBC	Electric SBC
10-Year	2012-2022	12%	8%	11%
5-Year	2017-2022	7%	3%	8%
2-Year	2020-2022	10%	9%	11%

EERMC 1-20
Active Demand Management

Request:

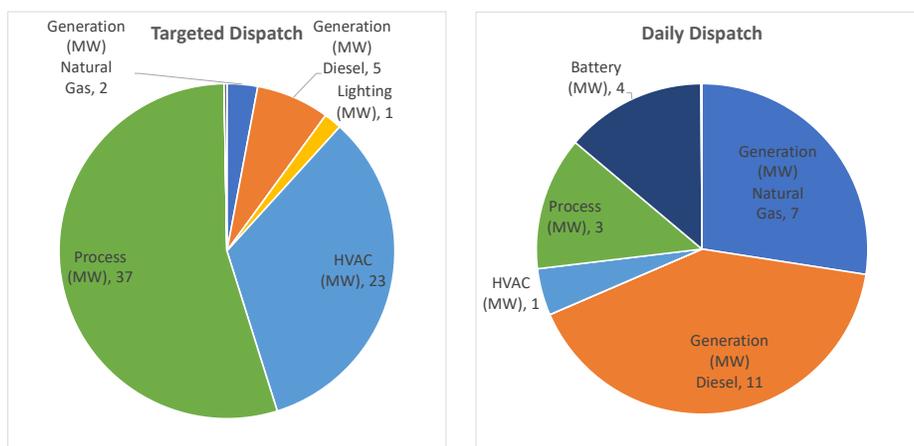
Please provide a detailed breakdown of the composition of C&I curtailment measures in the Active Demand Management program by primary technology (e.g. – generators, HVAC, lighting, process, other, as listed on the Connected Solutions application form).

Response:

The Rhode Island Targeted Dispatch and Daily Dispatch measures do not require customers to fill out an application. This is a requirement in the Company's Massachusetts service area, and the Massachusetts Targeted Dispatch and Daily Dispatch application does contain optional check boxes for customers to list the primary technology that will be used to curtail load for ConnectedSolutions. The Company does not have this data for the Company's Rhode Island service area.

As has been done for customers in the Company's Massachusetts service area, the Company could request that the curtailment service providers (CSPs) who have enrolled customers in the Rhode Island Targeted and Daily Dispatch measures provide estimated curtailment breakouts by technology. CSPs require about three (3) weeks of time to prepare this data. If requested by the EERMC, the Company is amenable to requesting this information for Rhode Island starting in 2022.

The results from the Massachusetts' effort of breaking out the technologies that participate in the Targeted and Daily Dispatch measures is below. The Company would expect a similar proportional result for the Company's Rhode Island service area.



EERMC 1-21
Active Demand Management

Request:

Please provide a detailed breakdown of the rate-class of all Direct Load Control Wi-Fi Thermostat participants in the Connected Solutions Active Demand Management program (e.g. – Residential Rate, Residential Discount Rate, Commercial).

Response:

Following are tables that show Direct Load Control Wi-Fi Thermostat participants in the Connected Solutions Active Demand Management measure as of 11/3/2021 by rate class and customer segment.

The table below shows the breakout by Rate Class. Please see an explanation of the rate classes here: https://www.nationalgridus.com/media/pdfs/billing-payments/bill-inserts/ri/cm4394_ri_bus-and-res-summary.pdf

Rate Class

Rate Class	% of Accounts Enrolled
unknown	0.1%
A16	97.1%
A60	1.5%
C06	1.2%
G02	0.0%

The table below shows the breakout by customer segment.

Customer Segment

Segment	% of Accounts Enrolled
unknown	0.1%
Commercial	1.3%
Residential	98.6%

EERMC 1-22
Equity, Income Eligible, and Multifamily

Request:

In its' presentation on the 2022 EE Plan at the EERMC's September 23rd meeting, National Grid indicated that with respect to the 3rd Party support system for Community Action Program (CAP) agencies in the Income Eligible Single Family Program, it was still working with CAP executives to finalize metrics at the end of 2021 for implementation in 2022 (slide 15). Please provide information on the following items related to these activities:

- a. Types of metrics that are being considered beyond those that are referenced in the 2022 EE Plan (i.e., quantity of outstanding jobs and length of time of pipeline for customers to be served).
- b. For each metric noted in response to the prior question (1.22.a), please indicate how National Grid will track and report on each metric for each of the CAP agencies. Please include information on the frequency of tracking and reporting.
- c. Please provide information about how National Grid plans to enforce (or not) the use of the 3rd Party support system when CAP agencies fall below the yet-to-be-determined thresholds for the metrics noted in response to the prior question (1.22.a).

Response:

The IES Program has instituted regular meetings with the CAP Executive Directors to discuss elements of performance and improvements needed in the Program.

Use of the 3rd Party Support system for Community Action Program (CAP) Agencies is one element of performance that is included in the ongoing discussions.

Recently, the conversation with CAP Agencies has evolved into a broader discussion of opportunities to improve the overall income-eligible program implementation model. The use of the existing 3rd Party Support system would be just one element of these opportunities. As a result of this broader approach for possible comprehensive improvements, specific metrics for use of the 3rd Party Support have yet to be defined.

EERMC 1-22, page 2
Equity, Income Eligible, and Multifamily

Further information in specific response to each sub-question is provided below:

- (a) These metrics are still in consideration as the IES Program and the Executive Directors are working to improve the overall implementation model. Once the model is fully designed, metrics related to utilization of the third-party vendor will be included in these performance indicators.
- (b) Once metrics are agreed upon, given any modifications to the implementation model, tracking and reporting processes will be outlined and communicated to stakeholders, including the EERMC.
- (c) National Grid has no current plans to 'enforce' use of the 3rd party vendor support for CAP agencies. The third-party option has been developed as a resource and option for CAP agencies who see value and wish to avail themselves of the incremental delivery bandwidth. It is not currently intended or designed to be used as a mandated requirement for CAP agencies.

EERMC 1-23
Equity, Income Eligible, and Multifamily

Request:

Please provide a breakout of approved budgets, actual spending, planned savings goals, and actual savings by CAP agency for years 2016-2022. For 2021, please include spending by CAP Agency year-to-date. For 2022, please include proposed budgets by CAP agency.

Response:

For an explanation of the methodology employed for years 2016 – 2022 in developing CAP agency budget allocations, please refer to EERMC 1-24.

Please see the Excel version of Attachment EERMC 1-23 for the breakout of approved budgets and actual spending by CAP agency for years 2016-2022. (Please note that South County CAP merged with Tri Town CAP in 2017).

Savings and benefits realized through the IES Program are achieved in aggregate, across the full portfolio of all of the CAPs serving Rhode Island. While budgets are allocated to CAPs for planning purposes, CAP specific savings goals are neither established for, nor communicated to, individual CAPs. Rather, all CAPs are encouraged to be as aggressive as possible in the realization and delivery of all available savings from income-eligible customers within their geographies. To the extent that an individual CAP is successful in identifying and realizing savings opportunities that require incremental budget beyond initial planned allocations, the Company’s implementation Lead Vendor works closely with the Company and all CAPs in order to ensure that sufficient resources are available to enable realization of these savings opportunities.

Historical savings and spending percentages – IES as a whole/aggregate of all CAPs

Year	Electric		Gas	
	Spend	Save	Spend	Save
2016	86%	115%	100%	161%
2017	89%	93%	108%	133%
2018	106%	104%	105%	105%
2019	82%	78%	75%	79%
2020	43%	54%	35%	31%

EERMC 1-24
Equity, Income Eligible, and Multifamily

Request:

Please provide the analysis and methodology that was used to develop CAP agency budgets for 2022. If the methodology has changed in any way over the past five years, please describe the changes and why adjustments were made to the methodology.

Response:

For the period from 2016 through 2018, budgets were allocated to CAPs based on Company analysis of historical CAP performance and Company and Lead Vendor estimation of individual CAP ability to utilize budgeted funding.

Since 2019, CAP agency budget allocations have been developed by identifying the total number of discount rate customers by town, allocating the customers to the appropriate CAP Service Territory, and then dividing the total IES Program budget based on the share of income-eligible discount rate customers identified as residing within each respective CAP territory.

This change was made to provide a more accurate distribution of budgets so the CAPs can serve the respective volume of customers in their territory.

EERMC 1-25
Equity, Income Eligible, and Multifamily

Request:

Please share all analysis and research which demonstrates that the income eligible and multifamily program areas proposed program activity will be sufficient to drive the proposed savings goals for these areas. Please make specific reference to areas of newly proposed program activity compared to that which was undertaken in 2021 and explain why the proposed activity will rectify the historical pattern of poor performance and underachievement in these areas.

Response:

The Company has proposed savings goals within income-eligible and multi-family programs through the same methodologies employed in establishing goals for all other programs – through a combination of a reliance on findings of achievable market opportunities from recent potential studies, combined with reviews of recent program performance and forward-looking conversations with implementation partners and other market participants. These conversations are focused on both project pipelines and outlooks for customer demand for energy efficiency services in these segments as well as anticipated delivery capacity during 2022. These goals were also reviewed extensively with stakeholders, including the EERMC and the consulting team serving the EERMC, throughout the planning process through regular sector team meetings and through reviews of draft Plan documents. Consistent with other programs in the plan, and the Company's obligations under Least Cost Procurement Law and associated guidelines, the Company feels that the savings goals as presented in the plan represent an ambitious, yet achievable, forecast of the level of savings and benefits that will be realizable through these programs in 2022.

Income eligible programs

The Company developed and/or reviewed the following data and analyses to arrive at the 2022 planned savings goals:

- Year-to-Date 2021 savings/spend, relative to 2021 plan and to historical trends (historical data can be seen in EERMC 1-23)
- Year-Over-Year changes to implemented measure mixes
- Marketing success rates (regional volume of distributions, online click-throughs)
- Current and anticipated future levels of customer enrollment in the Company's income-eligible customer discount rate
- Implementation vendor delivery capacity, including anticipated CAP staffing levels and historical and planned future referral rates to the Third-Party Vendor

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Equity, Income Eligible, and Multifamily

The Company also used regular meetings with CAPs (Executive Director Meeting, Best Practices Meeting, Key Performance Indicator Meeting) as a source of data as well as gaining a qualitative outlook for program trends and achievability of planned 2022 saving goals.

As the question notes, the Company in collaboration with the Agency Executive Directors, has proposed implementation model improvements to the IES Program, with a goal of realizing greater savings and benefits from the income-eligible program. Specific planned changes include the following (all of which, in aggregate, are anticipated to support the Company's achievement of planned goals in 2022):

- IES Program Implementation Opportunities – In 2021 the Company worked with the six CAP Executive Directors to analyze the IES Program performance and discuss ways to improve consistency of program implementation and ability to meet goals. In 2022, the Company and the Executive Directors will solidify and implement agreed upon improvements with the goal of creating a model to effectively serve the growing population of customers on the discount rate. Improvements that may be considered include taking a wholistic approach to support flexible Agency roles and resources allocations so that Agencies have the ability to assist other resource-constrained Agencies (i.e., post inspections). The Company views the optimization of the Program Implementation as a key strategy for meeting the growing customer demand and delivering on goals.
- Increasing weatherization completions: In 2021 the Company established a process by which the CAPs can refer weatherization jobs to a third party. The intent for this process was to assist the CAPs that were unable to complete their pipeline of weatherization jobs. Use of the third-party vendor allows the CAP to refer the weatherization jobs and for the jobs to be completed in a more-timely manner. In 2022, there will be ongoing process improvements to of the referral process in order to make it more efficient. In addition, there will be improvements made to the contractor-payment processing to attract more contractors to service the IES Program.
- Workforce Development: In 2021 the IES Program, in collaboration with the Rhode Island Builders Association, contributed to the development of a training program that is designed as a pathway for employment in an IES energy assessor role. The first cohort will complete the training program in 2022, and the IES Lead Vendor will work with participants to engage them on the application of their newly learned skills to the IES Program implementation. Coordination with the CAPs will be instrumental in attracting the newly trained participants and the Lead Vendor will help to foster the introductions

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Equity, Income Eligible, and Multifamily

and IES Program related job opportunities. Gaining perspective from the 2021 cohort and subsequent transition of the participants to the IES Program, the Lead Vendor will make any necessary adjustments to the training content and/or delivery and will help the Agencies to anticipate the availability of potential energy assessors.

Multi-family

The Company followed a similar process as described above for income-eligible programs in establishing 2022 savings goals for multi-family programs, relying on similar data, analysis and market participant input to arrive at planned goals.

As with the income-eligible programs, the Company is planning on a number of programmatic and implementation model improvements to the multi-family program in 2022 that it believes will be effective in supporting achievement of planned savings and benefit goals.

The most impactful of these planned changes, the Company believes, will be the following:

- Better leveraging market research studies and improving marketing and outreach - The Company will leverage the forthcoming Multifamily Census Study and Residential Non-participant Study data to perform targeted outreach to eligible properties that have not been served by the program to date. The company will use the non-participant data to better understand customer motivators and adjust marketing tactics and program offers.
- Increasing contractor participation - During 2021, the Company implemented changes in order to open the multi-family market to contractors currently operating outside of the program. The Company believes that this will have the impact of allowing customers greater choice in having the option to work with their own preferred contractor, while also potentially driving down project costs and required financial contributions from participating customers. The Company believes that both of these changes should have the impact of increasing customer demand for energy efficiency services in the multi-family program. In 2022, the company plans to work with its implementation vendor in order to improve and expand outreach to local contractors, with the anticipated impact of greater realization of the above benefits in the coming year.

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Equity, Income Eligible, and Multifamily

Request:

Please provide a detailed, comprehensive write-up for how the National Grid will implement each equity commitment included in the 2022 EE Plan, covering both the main text and Attachment 11. This write-up should include, for each commitment, at a minimum:

- a. Detailed, specific implementation strategies and activities
- b. All planned spending to support these commitments
- c. Estimated staff time to support these commitments
- d. Planned data collection activities
- e. Metrics to be tracked including how they are to be calculated
- f. Clear definitions for success or failure for each commitment, including how data-based metrics and calculations will be used to inform the determination of success or failure
- g. Data reporting timelines including which metrics will be reported, when, in what form, and to whom
- h. A detailed timeline of opportunities for feedback from efficiency stakeholders
- i. A detailed timeline and process plan for how National Grid will continue to engage the members of the equity working group, including when the equity working group members will be provided with updates on equity work and opportunities for equity working group members to provide feedback

Response:

As detailed in Schedule A within the Annual Energy Efficiency Plan for 2022 ("2022 Annual EE Plan"), equity is a core strategic priority for the Company in the planning and delivery of energy efficiency programs. The Company is committed to ensuring all customers benefit from these programs, regardless of circumstances such as their geographic location, income, home ownership status, primary language, or business size. The Company also believes program-related jobs and positive economic development impacts should reach all Rhode Island communities, with particular emphasis on environmental justice/disadvantaged communities. The forthcoming Participation and Multifamily Census, as well as the Nonparticipant Market Barriers Study, will help the Company understand how biases may be impacting program and customer outcomes. The Company has not waited for full study results to begin taking action when clear opportunities to achieve greater equity in the programs present themselves. Section 2 of Schedule A outlines the Company's Programs and Priorities, which includes activities that will ultimately contribute to equity in the programs. Additionally, as a part of National Grid's 2021 Annual Energy Efficiency Plan and 2021-2023 Energy Efficiency Program Plan, the Company committed to working with the RI Office of

EERMC 1-26, page 2
Equity, Income Eligible, and Multifamily

Energy Resources (“OER”) to co-host an Equity Working Group (“EWG”). The objective of the EWG was to provide the Company (and, by extension, stakeholders) with additional recommendations on incorporating equity into the planning, design, and delivery of the energy efficiency programs. A full report on the EWG’s activities during 2021 can be found in Attachment 11 of the 2022 Annual EE Plan. The EWG prioritized fourteen recommendations, which the Company has used to develop additional, overarching equity related enhancements for this 2022 Annual EE Plan. These recommendations, and National Grid’s responses, are shown in Schedule A of the 2022 Annual EE Plan, Table 7: EWG Recommendations and 2022 Plan Enhancements.

- a. The Company has not yet developed detailed, specific implementation strategies and activities for its 2022 Annual EE Plan pertaining to the equity-related efforts due to the EWG meeting schedule. The equity implementation strategies will be developed in early 2022.
- b. The Company cannot separate out all its planned spending on equity because equity is a core component of the 2022 Annual EE Plan and is integrated into the Company’s overall program designs, budgets and planned savings and benefits.
 - The Company’s largest and most discernable equity-related planned spending includes \$26,122,000 for its Electric and Gas Income Eligible Residential Programs. These programs increase access to energy efficiency and demand response measures to customers with limited household incomes.
 - As a result of the EWG’s recommendations outlined in the 2022 Annual EE Plan, the Company has targeted \$430,000 across its Residential and Income Eligible Program marketing budgets to encourage program participation and measure adoption from multi-cultural and multi-lingual customers as well as customers who may face challenges to participating.
 - Also, because of the EWG recommendations, the Company has allocated \$93,750 of its Residential and Income Eligible Program Planning and Administration (“PPA”) budgets for a new energy efficiency customer advocate, who will be hired between March and June of 2022. This customer advocate will promote the programs to customers who might need direct outreach to participate, such as renters, income eligible, or minority customers.

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Equity, Income Eligible, and Multifamily

- An additional \$65,000 has been allocated because of EWG recommendations to the EM&V budgets for a workforce development needs assessment. The workforce development needs assessment will help ensure the energy efficiency workforce is as diverse as the Company's customer base, so that customers of all backgrounds can feel comfortable with the vendors and contractors providing energy efficiency services.

Although this is not a detailed list of all planned spending on equity at this time as the Company continues to develop its strategy and activity, the Company believes these investments are representative of a significant commitment to equity.

- c. Because equity is a core component of the 2022 Annual EE Plan, the Company also cannot separate out its planned staff time dedicated to equity. Each of the Company's staff members has the responsibility to develop strategies, and then deliver on those strategies, related to the equitable delivery of services in the programs within their purview.

Each of the questions asked in d. through i. have been answered for the EWG's prioritized fourteen recommendations, which represent distinct equity-related commitments by the Company in its 2022 Annual EE Plan.

- d. Planned data collection activities are detailed under Schedule A, Table 7: EWG Recommendations and 2022 Plan Enhancements, recommendations 9 and 10.
 - The Company is benchmarking Energy Efficiency Program participation data for race, geography, socioeconomic status, language, age of home, age of owner, age of renter, heating fuel type, type and age of heating/hot water/cooling systems through its Participation and Multifamily ("MF") Census studies, as well as the Nonparticipant Market Barriers Study, which will be completed in early 2022. Education, race and ethnicity will be gathered by census block group. Some information will be populated with third party data but will be useful in aggregate. The information from these studies will be compiled for public reports. The Participant and MF Census study will also provide implementation and marketing teams with a comprehensive database of MF buildings that includes building characteristics and an indicator of whether or not each building has participated in a program.

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Equity, Income Eligible, and Multifamily

- The Company will also use internal data to establish a separate, regular report by Q2 2022 that shows participation for the EnergyWise, Multifamily, and the Income Eligible Single-Family programs at the zip code level, which will be able to be utilized for targeted outreach.
 - The Company will continue to gather rental unit participation data and report on that information quarterly at the “sector level meetings” with OER, the Consultant Team to the Rhode Island Energy Efficiency and Resource Management Council (the “EERMC”), and the Division of Public Utilities and Carriers (“Division”).
 - The Company will also continue to track late payments and disconnections through National Grid’s Low-Income Monthly compliance report under Docket 4770, which can be accessed at <http://www.ripuc.ri.gov/eventsactions/docket/4770page.html>, under Other Compliance Reports.
- e. Please refer to the data collection activities detailed under part d. of this response. The Company has committed to working with external stakeholders to determine if these data sets and each related report should be refreshed on a regular basis. The Company could also use this baseline data once available to establish potential metrics.
- f. The Company has listed its “Determination of Success” for each proposed EWG 2022 enhancement in Schedule A, Table 7: EWG Recommendations and 2022 Plan Enhancements. This information establishes definitions for success or failure for each commitment.
- g. As the Company states in its 2022 Annual EE Plan under Section 2.5.1, the Company will provide updates on the implementation of these EWG enhancements in Q2 and Q4 of the Company’s 2022 Annual Energy Efficiency Quarterly Reports to the Public Utilities Commission.
- h. Please see Attachment EERMC 1-26-1 for the mutually designed and agreed upon EWG Guidelines created by National Grid and OER. National Grid and OER agreed that a representative from the EWG would report recommendations to the Energy Efficiency Technical Working Group (“EETWG”) quarterly, serving as the EETWG’s primary resource on equity related matters. A representative from the EETWG would inform the EERMC of EWG recommendations upon request. The procurement process and contract with the EWG vendor, Green & Healthy Homes Initiative (“GHHI”), was completed on April 26, 2021. The Company, representing the EWG, made a presentation

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Equity, Income Eligible, and Multifamily

to the EETWG on May 27, 2021, that detailed the EWG's process for the upcoming months. The Company then presented the EWG's top recommendations to the EETWG on August 24, 2021. Upon request from OER, GHFI presented on the EWG process and recommendations to the EERMC on October 21, 2021.

- i. As the Company states in its 2022 Annual EE Plan under Section 2.5.1, the Company will provide updates on the implementation of these EWG enhancements in Q2 and Q4 of the Company's 2022 Annual Energy Efficiency Quarterly Reports to the Public Utilities Commission. The Company also commits to quarterly EWG meetings during 2022. The Company, in conjunction with EWG co-host OER, will develop specific EWG timelines and agendas after the regulatory process for the 2022 Annual EE Plan is completed.

DRAFT Guidelines for the RI Equity Working Group (1.14.2020)

***final guidelines to be finalized and approved by Equity Working Group participants**

Overview

As a part of National Grid's 2021 Annual Energy Efficiency Program Plan (2021 Annual EE Plan) and 2021-2023 Energy Efficiency Program Plan (2021-2023 EE Plan), National Grid has committed to working with the RI Office of Energy Resources (OER) to co-host an Equity Working Group (EWG). These guidelines set expectations for the EWG and its participants.

Mission

The EWG will give impacted communities, and the organizations that serve them, an ongoing and structured opportunity to provide input and feedback on equity for the planning, design, and delivery of the residential and income eligible energy efficiency programs.

Participation

National Grid and OER envision the working group to be comprised of representatives from National Grid, OER, other state agencies, community-based organizations, advocacy organizations, and local subject matter experts in equity. Participation is not limited, but group size should encourage active discussion.

Group Expectations

A facilitator will be hired by National Grid to support the meetings, which will be held at least quarterly, and more frequently as deemed necessary (such as during the initial establishment of the EWG and during certain phases of the energy efficiency program planning cycle).

The facilitator will distribute agendas and related materials three (3) business days in advance of a meeting. The facilitator will also ensure accurate meeting notes are taken and distributed to the group within seven (7) business days after a meeting occurs. These summary notes will include any action items assigned to participants during the meeting. Meeting notes from each meeting are for participant use only. Participants will have an opportunity to provide corrections and additions to the prior meeting's notes at the beginning of each subsequent meeting.

All participants will show respect to fellow participants. Meeting attendees will:

- Make every attempt to attend every meeting.
- Share the oxygen – ensure that all participants who wish to have an opportunity to speak are afforded a chance to do so.
- Listen to other points of view and try to understand differing viewpoints and other interests.
- Maintain a focus on collaboration and solutions.
- Share information openly and respectfully.
- Make sure information given is accurate.
- Remain flexible and open-minded.

Anticipated Deliverables and Outcomes

The EWG will make recommendations on equity for the planning, design and delivery of the residential and income eligible energy efficiency programs. Recommendations will be prioritized to help stakeholders understand their relevant importance to the EWG.

A representative from the EWG will report recommendations to the Energy Efficiency Technical Working Group (EETWG) quarterly, serving as the EETWG's primary resource on equity related matters. A representative from the EETWG will inform the Energy Efficiency Resource Management Council (EERMC) of EWG recommendations upon request.

Examples of recommendations from the EWG might include ways to:

- Remove institutional barriers, practices, and policies that impact participation and savings from customer groups such as renters or moderate income customers;
- Improve outreach to communities with low participation; and
- Increase the racial/ethnic, gender, and language diversity of the energy efficiency workforce.

Recommendations from the EWG, along with information gathered through a residential non-participant study, a census of multifamily housing, and other relevant data, will be used by National Grid to build program enhancements, tailor marketing efforts, and enhance tracking systems to better meet the needs of identified non or low-participating customer groups.

The EERMC will use the information relayed by the EETWG from the EWG in their deliberation of support for future EE Plans.